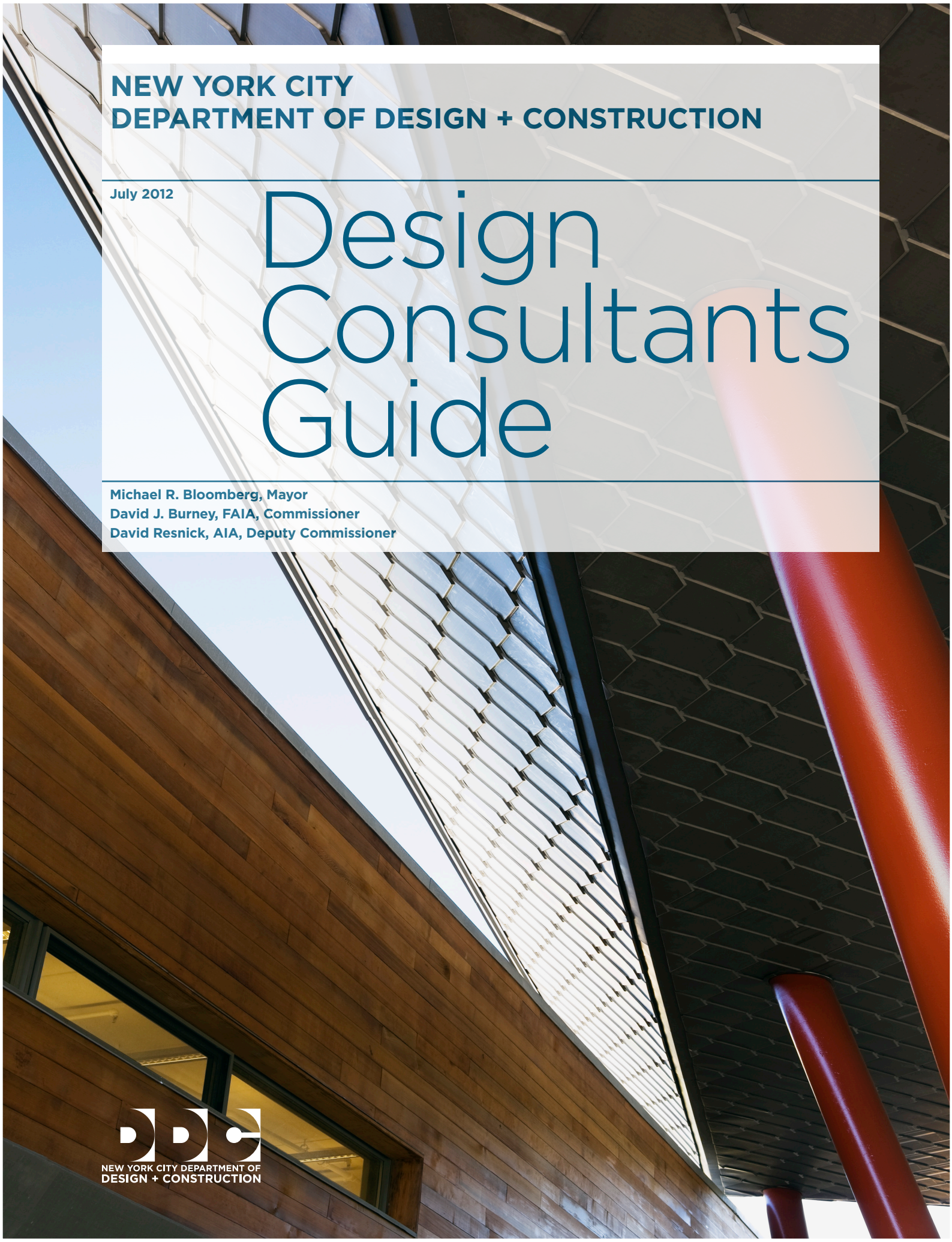

NEW YORK CITY
DEPARTMENT OF DESIGN + CONSTRUCTION

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Design Consultants Guide

Michael R. Bloomberg, Mayor
David J. Burney, FAIA, Commissioner
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NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

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A. The Division of Public Buildings

The New York City Department of Design + Construction (DDC) Division of Public Buildings provides project management services for the City of New York's capital construction projects. DDC maintains contracts with architects, engineers, contractors, and construction management firms, and provides project direction, management, and oversight, in support of the capital construction requirements of a broad range of municipal agencies, referred to as Client Agencies.

Design opportunities through DDC range from major new public buildings to retrofits and upgrades of existing buildings. Regardless of scale or scope, every project represents an opportunity to enhance the public realm and improve the quality of the City's public buildings and spaces. DDC seeks to achieve the highest quality of design and construction on every project. The design process is conducted as a collaborative effort between the Consultants and sub-consultants, DDC staff, representatives of the Client Agencies, regulatory agencies, and others. It is an iterative process in which the design team fully explores programmatic requirements, site conditions, context, budget, and other factors to develop a creative, responsible, and functional design in full compliance with all applicable codes, local laws, industry standards, and project objectives.

DDC projects include building types such as cultural institutions, libraries, government offices, parks buildings, laboratories, sanitation facilities, emergency shelters, transportation facilities, firehouses, health clinics, senior centers, child care centers, courts, correctional facilities, police precincts, and emergency medical stations. DDC's Clients Agencies currently include the Department of Cultural Affairs (DCIA), the Department of Parks and Recreation (DPR), the Brooklyn Public Library (BPL), the New York Public Library (NYPL), the Queens Library (QL), the Department of Transportation (DOT), the Taxi and Limousine Commission (TLC), the Department of Environmental Protection (DEP), the Fire Department (FDNY), the Department of Health and Mental Hygiene (DOHMH), the Office of the Chief Medical Examiner (OCME), the Department for the Aging (DFA), the Department of Youth and Community Development (DYCD), the Administration for Children's Services (ACS), the Agency for Childhood Development (ACD), the Department of Citywide Administrative Services (DCAS), the Department of Homeless Services (DHS), the Department of Consumer Affairs (DCA), the Human Resources Administration (HRA), the New York State Office of Court Administration (NYSOCA), the Department of Sanitation (DSNY), the Department of Correction (DOC), the Police Department (NYPD), and the Office of Emergency Management (OEM).

The specific project goals of the Client Agencies are served by individual DDC Program Units assigned to each agency. The Program Units comprise the principal organizational framework of the Public Buildings Division, and are supported by the technical, budget, and contract processing resources of other units within DDC. The Program Units are directly responsible for managing projects from the initial program requests by the Client Agency through design, construction, completion, and acceptance for occupancy. Each Program Unit is headed by a Program Director whose primary responsibilities are to guide and oversee the implementation of a Client Agency's capital construction program. Project Managers in the Program Units lead individual projects. They are supported by project teams, from the Architecture and Engineering Unit (A&E) and the Technical Support Unit which provide specific services on an as-needed basis includingarchitecture, engineering, landscape architecture, urban planning, historic preservation, sustainable design, cost estimating, building code and permitting, and building condition surveying. Tasks include project scoping and design review, budget development, cost estimating, and pre-award bid analysis. The coordination of support services is assured through the designation of a Team Leader from A&E, who works closely with the Project Manager.

B. The Purpose of This Guide

The Design Consultant's contract with DDC consists of three documents; the Agreement, the Task Order, and this Design Consultant Guide. The Agreement and the Task Order define contractual responsibilities and describe the specific nature of the work required for the particular project or requirement contract. The Design Consultant Guide complements the Agreement and the Task Order. It describes the design criteria of the agency, the goals, services, and deliverables expected, and the approvals and procedures necessary to complete design projects at DDC. Together, all three documents comprise the Contract. Should there be any conflict among these documents; the following order of priority shall prevail:

1. Agreement
2. Task Order, including the Project Objectives (scope of work)
3. Design Consultant Guide

Given the wide variety of project types undertaken by DDC in support of its Client Agencies, each project is unique, making the standardization of project delivery methods difficult. This Design Consultant Guide, however, serves to outline qualitative expectations, and to describe broad requirements that pertain to most projects. Descriptions of services and deliverables are intended to help both the Consultant and DDC staff to understand expectations and to evaluate the acceptability of completed tasks.

In addition to this guide,the Consultant should also familiarize themselves with Client Agency design guides, requirements, or standards. These all are to be reviewed for conflicting goals or objectives. Resolution of conflicts is the responsibility of all parties involved.

Many of DDC's design projects are initiated through Requirement Contracts for design services. The Requirement Contract is necessarily generic with regard to specific project scopes, since projects to be undertaken are not known at time of contract initiation. For these projects, the Task Order shall be considered to be an elaboration of the Contract's requirements.

All tasks shall be carried out as directed in this Guide unless the Task Order or other written documentation from DDC explicitly states otherwise.

C. Design+Construction Excellence

DDC has been implementing Mayor Michael R. Bloomberg's Design + Construction Excellence (D+CE) program since 2004. D+CE enables New York City to pursue an innovative and ambitious public works program in partnership with the most creative and experienced design professionals in the world. Its strategies focus on new procurement methods, new business policies aimed at enhancing project management, developing more accurate project scheduling guidelines, tightening the budget process, utilizing the latest design practices and technology such as BIM, and creating continuing education and evaluation standards. Overall the D+CE program improves the manner in which the
City procures, designs, and constructs public works.

A hallmark of this program is the adoption of Quality-Based Selection for the procurement of design services. This process allows the City to hire firms based on their qualifications and the established quality of their work, rather than the more traditional lowest bid methodology.

In contracting for design services, DDC seeks firms that consistently demonstrate design excellence, together with the management skills necessary to complete the work within the schedule and budget. Commitment to design quality is characterized by:

1. **Intent**
   The design of public projects must be guided by a civic consciousness and social responsibility in order to provide dignified spaces that promote civic discourse, exemplify accessible municipal government, and inspire pride in the City of New York.

2. **Clarity**
   The design must reflect a clear understanding of the Client Agency's mission, facility operations, maintenance practices, and project goals.

3. **Value**
   Public works require a cost effective design approach incorporating life-cycle analysis in the selection of materials and systems.

4. **Innovation**
   A balance must be achieved between the desire for innovative design and the realities of proven operating and maintenance practices. Durability, ease of maintenance, and material innovation are encouraged.

5. **Safety**
   Public safety is a primary expectation in public buildings. Layout, materials, systems, and processes shall be selected or specified that meet or preferably exceed minimum code requirements.

6. **Constructibility**
   The completeness, accuracy, and integrity of contract documents must be assured. Documents must be comprehensive, clearly detailed, and well-coordinated across multiple disciplines.

7. **Professional Responsibilty**
   One of the key sucesses to Design Excellence is our Consultant's recognition that architecture is about team building as well as the final product, and their willingness to go beyond the creation of contract documents to also serve as facilitator, mediator, and interpreter between the many stakeholders involved throughout the life of the project.

8. Sustainable Design and Construction

Improving the performance of capital projects reduces operating costs and adds value to the City's assets while helping to protect the health and environment of its citizens. Many projects are required to comply with Local Law 86 of 2005. The Consultant is encouraged to explore multiple alternatives for meeting this requirement and should also investigate cost-effective options for exceeding the minimum requirements of the law where feasible. Projects not required to meet LL86 should nevertheless undergo a similar design process and strive to incorporate sustainable features to the fullest extent possible.

9. Universal Design

DDC is committed to supporting the principles of Universal Design in all projects. This means surpassing the minimum considerations of the ADA to provide a truly accessible environment.

10. Active Design

DDC encourages the adoption of Active Design principles on all projects. Project teams should strive to incorporate elements that promote physical activity where appropriate. The Consultant is expected to be familiar with DDC's Active Design Guidelines and is welcome to attend training sessions provided by the Agency. Local Law 86 projects should achieve the Active Design Innovation Credit where feasible.

11. Building Information Modeling

DDC considers that Building Information Modeling (BIM) as technology and process is superior to traditional non-BIM methods, when properly scaled in its use. BIM as an enhanced digital delivery system represents a change in how the DDC, our client agencies and end users, and our Design Consultants interact and use information. DDC supports the full utilization of BIM in the development of the design and construction documents. Further, DDC also promotes the use of BIM throughout the procurement and construction process. This requires full cooperation between all project participants, including the consultants, sub-consultants, construction management firms, contractors, sub-contractors, fabricators, and suppliers. In addition to this guide for all BIM designated projects, consultants shall adhere to the latest version of the DDC BIM Guidelines. .

12. Percent for Art

The Percent for Art program is overseen by the Department of Cultural Affairs (DCIA) and requires a fixed percentage of the capital funding is used to create or purchase artwork to be a part of selected major capital projects. DDC actively supports the integration of the artwork within the design process. The Consultant is required to work with the Artist to facilitate that integration.

I Overview of Design Process

Typically there are four stages in the delivery of capital projects from initiation to the completion of construction. Over the duration of the project various DDC team members will be involved. In general, the four stages are as listed and as further described below:

- Scope Preparation and Design Consultant Selection/Contract Registration
- Design, including Pre-Schematic, Schematic, Design Development, and Construction Documents phases
- Bid, Award, and Registration of Construction Contracts
- Construction

A. SCOPE PREPARATION AND CONSULTANT SELECTION/ CONTRACT REGISTRATION

1. The Client Agency submits a Capital Project Initiation request to the DDC Division of Public Buildings, which includes a general description of the project, a summary of the required work, and funding information. The Program Director of the respective Program Unit assigns a Design Project Manager. Later at the start of the Bid/Award Phase a construction project manager known as the Resident Engineer will be assigned to the team.

2. The Program Unit reviews the program and transmits it to the DDC Strategy Board, where the project is discussed in detail, and the various regulatory pathways and design service procurement options are considered and chosen based upon project scope and construction budget. A specific level of compliance with Local Law 86, another sustainable design standard, and Active Design applicability will be determined.

3. The Architecture and Engineering Unit (A&E) will assign a Design Review Team Leader who will in turn request Design Review Team members for all applicable specialties. The Project Manager will arrange a site visit for the Design Review Team, who will develop a detailed scope of work known as the Project Objectives, for the project.

4. Based upon the design service procurement method chosen, either the Project Manager will request a design proposal from a specialty consultant under a requirements contract with DDC, or the Design Liaison will issue an RFP to the firms in the D+CE program. In some cases, when the project is very large or complicated, the Design Liaison will create a project specific RFP which is issued by the Agency Chief Contracting Officer (ACCO) following Procuremenet Policy Board)PPB) rules. The prospective Consultants are invited to attend a site walk-through to become familiar with the project site and scope. Regardless of the method of procurement, all Consultants are required to follow the Design Guide.

5. When an RFP is issued, the Proposers' responses are evaluated by the Consultant Selection Committee led by the Design Liaison and including representatives of the Client Agency, the Program Unit, A&E, and other DDC personnel, and a Consultant is selected. In certain cases a short list of Proposers is created, and these firms are interviewed prior to a Consultant being selected. Once a Consultant is selected and a fee for services is established, the contract award process begins. The two primary steps to this process are the approval of the Certficate to Proceed by the Office of Managemewnt and Budgety (OMB) and the subsequent registration of the Task Order by the NYC Comptroller. Once the task is registered, the Consultant is awarded the project and the DDC Project Manager schedules the project kick-off meeting.

6. DDC notifies the selected Consultant, requests a fee proposal, and commences the contract award process. Upon approval by the necessary oversight agencies, including registration of the Consultant Contract or Task Order by the Office of the Controller, DDC awards the design contract and the Project Manager establishes the kick-off date.

B. DESIGN

1 The design process is divided into several design phases, including Pre-Schematic Design (if required), Schematic Design, Design Development, and Construction Documents. Most design contracts begin with Schematic Design; the Pre-Schematic Design phase is utilized when the Design Consultant is requested to provide space programming, existing conditions drawings, or other such services normally provided by the DDC or the Client Agency.

2. All phases will commence with a kick-off meeting that will layout the expectations for that phase. Periodic progress meetings shall be conducted throughout the phase. These meetings are expected to be constructive exchanges of information and ideas.

3. Each of the phases requires a submission of drawings, documents, data, reports, material samples, etc. The exact requirements for each phase are documented in this Guide and the DDC BIM Guide supplemented by either the Task Order or the Project Objectives.

4. The submitted materials will be reviewed by the Project Manager, Design Review, Cost Estimating, and Constructibility Review, as well as the Client Agency. Some units may not be involved at all submissions (see chart below). Written comments will be generated by the review team(s) within fifteen business days and submitted via the Project Manager to the Consultant.

Submission Review Disciplines by Stage					
	Pre-Schematic	Schematic	Design Development	50% Construction documents	100% Construction Documents
Project Manager	*	*	*	*	*
Design Review	*	*	*	*	
Cost Estimating	*		*		*
Constructibility Review				*	*
Client Agency	*	*	*	*	*

5. The Consultant is required to respond to the review comments in writing within ten business days. If so directed, the response shall be in the form of a partial or complete resubmission of the documents.

6. DDC will review the responses and determine if they are acceptable. Acceptance of the responses is required in order for the project to move forward to each subsequent design phase.

7. Throughout the design phases mentioned herein the Consultant will participate in the Percent for Art Program where applicable. Persuant to Section 224 of the City Charter, the City has instituted the "Percent for Art Program", a public art program within the City's Department of Cultural Affairs which requires the allocation of certain capital fund for the establishment of artwork in public places. In 1982, Local Law 65, the Percent for Art law was initiated and states that 1% of the capital budget must be spent on art. Works of art must be provided for each capital project which involves the construction or the substantial reconstruction of a city-owned public building or structure the intended use of which requires that it be accessible to the public generally or to members of the public participating in, requiring or receiving programs, services, or benefits provided thereat. For the purposes of this section a police precinct house or a firehouse shall also be deemed to be such buildings. The Art Allocation must be used for the commission or purchase of artwork, or for the direct costs incurred in the relocation and/or restoration of an artwork owned by the City to be installed at an eligible project site. The Art Allocation may be used to acquire more than one work of art or to commission more than one artist.

8. The construction documents will undergo constructibility and bid packaging review at the 50% and 100% Construction Documents Phases. Based on the review of the 100% Construction Documents phase submission, the Constructibility Unit will issue the final review comments. The Consultant will revise the drawings accordingly and resubmit drawings "in compliance" with the comments. If the 100% Construction Documents submitted are deemed to be unacceptable for bidding, the Consultant will revise the documents as necessary and resubmit.

9. Upon final acceptance of the Construction Documents, the Consultant shall issue a set of bid documents in a reproducible format as directed by DDC.

10. The Consultant is required to obtain approvals from all government agencies having jurisdiction. These include but are not limited to; Department of Buildings, Public Design Commission, Landmarks Preservation Commission, and the Department of Environmental Protection. The Consultant and/or sub-consultant shall sign and seal all necessary drawings and forms and file with the appropriate regulatory agencies. The Consultant shall forward approvals to the DDC Project Manager.

C. BID, AWARD, AND REGISTRATION OF CONSTRUCTION CONTRACTS

1. DDC will reproduce the bid documents, unless the Consultant is directed to perform this duty.

2. Bid documents will be made available for purchase by the prospective bidders. A bid opening date will be established and the contracts will be advertised.

3. The Consultant shall interpret plans and specifications and respond to inquiries and RFI's from the prospective bidders.

4. The Consultant shall prepare and issue all necessary addenda, amendments, and drawings required for the clarification of the bid documents. All documents shall pass through the DDC Project Manager and the Constructibility Unit.

5. The Consultant shall attend pre-bid meetings to answer questions from bidders and to assure that all parties understand the intent of the bid documents. Pre-bid meetings for complex projects are held at the site to ensure that all bidders become familiar with the existing conditions. The Consultant shall prepare an agenda listing elements of the project that require special attention, coordination, or experience. If the meeting discussion results in a change to the bid documents, the Consultant is responsible for the preparation and issuance of Addenda.

6. The bidders will submit their bids to DDC. The Consultant shall attend the formal bid opening.

7. The Consultant shall assist in the analysis and evaluation of the bids. Written recommendations and reports on the disposition of bids and the award of contracts shall be required within three days of the bid opening. The Consultant shall also assist in the review and evaluation of Special Experience Qualifications submitted by the Contractor and or subcontractors.

8. The Consultant shall attend pre-award meetings to answer questions and to assure that all parties understand the intent of the bid documents.

9. DDC shall award contracts to the lowest responsive and responsible bidders following review by the appropriate oversight agencies.

10. The NYC Comptroller registers the contracts.

11. DDC establishes a construction kick-off date.

D. CONSTRUCTION

1. The DDC Resident Engineer oversees the work of the Contractors. When a private Construction Manager (CM) is retained for a project, the Resident Engineermonitors the CM's performance.

2. The Contractors shall develop detailed cost estimate breakdowns, progress schedules, coordinated construction working drawings, shop drawings, schedules, and any plans required to fulfill Local Law 86 or other sustainable construction practices, such as plans for Erosion and Sedimentation Control, Stormwater Pollution Prevention, Construction Waste Management, or Indoor Air Quality During Construction. The Resident Engineer reviews and accepts these documents with input from the Consultant and, if appropriate, the DDC Office of Sustainable Design.

3. Contractors perform the construction work to completion with supervision by the Resident Engineer. The Consultant provides services during construction as required by their contract, including attending regular construction meetings and sustainability review meetings, responding to RFI's, shop drawing and submittal review, periodic site visits and observation reports, design clarification, tracking of LEED metrics, and punch list.

4. Special Inspections are the responsibility of DDC and/or the Construction Manager and will be performed through a separate contract. In rare instances the Consultant may be directed to provide Special Inspections as an additional service.

5. Throughout the construction phase, if necessary, the Resident Engineer will initiate and prepare change orders to the construction contract. Upon approval, the Consultant or Contractor will perform the necessary change order work.

6. At Substantial Completion, the Consultant, DDC, and the Construction Manager prepare punch lists for resolution by the Contractor.

7. The consultant is expected to provide any documentation identified by DDC in order to close-out all applications with regulatory agencies and the USGBC, if applicable.

II Pre-Schematic Design

A PRE-SCHEMATIC DESIGN GOALS

If further investigation is necessary in order to clarify the programming requirements, design goals, or project scope of work, the Consultant may be directed to perform Pre-Schematic Design work. This may include an existing conditions survey and documentation, programming, basic sustainable design strategy, or master planning. When Pre-Schematic Design services are requested in the Task Order or Project Objectives, the Consultant shall evaluate the program, the existing conditions, and the design parameters and produce studies, drawings, or reports as needed. Studies shall be accompanied by associated cost estimates. The ultimate goal of Pre-Schematic Design is to establish a defined scope of work and/or program acceptable to all stakeholders in order to move smoothly into Schematic Design without ambiguity related to the basis of design.

B. PRE-SCHEMATIC DESIGN PROCESS

1. Pre-Schematic Design Kick-Off Meeting

The Kick-Off Meeting shall be held at the start of the project and is attended by the Consultant, sub-consultants, DDC Project Manager, Client Agency representatives, DDC Design Review Team Leader, and additional DDC team members as may be required. At this meeting all important project requirements shall be discussed, including but not limited to:

a. Requirements of the Contract
Including the Agreement, the Task Order or the Project Objectives, and the Design Consultant Guide

b. Project Intent and Goals, including LEED certification level or other sustainability targets

c. Project Scope

d. Client Agency Standards and User Needs

e. Budget

f. Site Data
Including information about site surveys and borings

g. Hazardous Material Testing

h. Schedule
The Consultant shall present a schedule for approval by DDC for the entire project duration. This includes without limitation, a complete activities checklist with milestones, due dates for all submittals, and the approximate construction duration.

2. Progress Meetings

The DDC Project Manager schedules progress meetings. The Consultant attends, participates, and brings the necessary materials to ensure a productive meeting. at progress meetings to be scheduled by the DDC Project Manager. The attendees shall vary based upon the individual meeting agenda. These meetings shall be recorded by the Consultant in meeting minutes. Criteria for these minutes appear in Appendix A-3 under “Minutes”.

3. Design Review Comments & Consultant Response

At the end of each phase the Design Review Team shall generate comments in response to the Consultant submissions. The Consultant is required to respond in writing to these comments. Responses should be submitted within ten business days, shall answer all review comments, addressing the spirit of the comments as well as the specific issues. The A&E Project review form contains a column for the consultant to respond to the individual comments; Consultant responses will only be accepted on this form. The Consultant is also expected to respond to the client agency's review comments within the same period.

4. Acceptance

The project cannot move forward without written sign-off from the Project Manager.

5. Budget Substantiation

At the end of each phase the Consultant is responsible for submitting a design scheme whose estimate meets the current construction budget. If all stakeholders are in agreement that the project scope cannot be reduced to meet the current budget, and agree that additional funding is necessary, the responsibility to secure such additional funds rests with the Client Agency. The Consultant and DDC staff will support the Client Agency as necessary by providing technical information and scope verification.

C. PRE-SCHEMATIC DESIGN TASKS

Pre-Schematic Design Phase tasks may include any or all of the following:

1. Existing Conditions Survey and Documentation

The Consultant shall prepare drawings showing the existing conditions for all trades as necessary for the scope of work. These drawings shall be labeled, titled, dimensioned, and shall comprehensively relate to the context for design and program assumptions. The Consultant is responsible for all required measurements in the field of existing buildings or structures including their structural and MEP systems. DDC will provide site surveys of the project location indicating at a minimum the following; property lines, surface topographical data, overall exterior dimensions of built structures, site utility data, finish floor elevation at all entry points, landscape features, and street data. Where BIM is to be utilized for the project, the Consultant will produce an existing conditions BIM model in lieu of drawings.

2. Space Programming

The Consultant shall meet with the Client Agency representatives as necessary to establish programmatic space requirements for the project. No client meetings are to occur without DDC representation. The program will identify all major rooms and spaces required for the project; identify each space by function; use, or occupant; indicate net square footage requirements for each space; and list all required furniture and equipment required to be located within the each space. The Consultant shall develop grossing factors to account for all circulation, egress, MEP equipment spaces, and other spaces required for the project but not specifically listed in the program. The Consultant shall develop additional grossing factors to account for exterior and interior wall construction and other building structure. The Consultant shall identify critical functional adjacencies for each space, and indicate any other special requirements such as environmental factors, security, and functional requirements. Services include:

a. Inventory of Existing Spaces

Survey and prepare an inventory of existing spaces for the functions included in the scope of the program. Provide a detailed analysis of the functional and area requirements of each of these activities. Compare the net existing area space with that of the proposed space.

b. Anticipated Growth or Diminishment
Study and analyze spatial requirements based on anticipated growth or diminishment. Time periods for projecting future needs shall be approved by DDC and the Client Agency.

c. Individual Work Space Standards
Establish or confirm individual work space standard for each category of personnel to ensure equitable treatment and efficient space use.

d. Adjacency and Work Flow
Determine adjacency requirements and work patterns during normal and peak use periods.

e. Special Purpose Areas
Develop space requirements for special purpose or limited duration areas.

f. Building Service Areas
Develop requirements for building service areas, to allow for proper operation and building maintenance. These include supply and storage areas and spaces allocated for waste disposal and delivery systems.

g. Service Requirements
Establish the Client Agency's requirements for building structural, mechanical, plumbing, electrical power and lighting, fire alarm, security, data and telecommunications systems, and acoustical treatment. For each type of program space, identify environmental parameters such as ambient temperature, humidity, air exchange rate, light levels, access to daylight and views, and acoustics.

h. Engineering Requirements
Spaces shall be programmed for equipment of sufficient capacity to fulfill the parameterss listed above providing the facility with heating, ventilation, air conditioning, electrical, fire protection, plumbing, data, and telecommunications, in conformance with applicable energy and water conservation requirements.

i. Note:
Space Programming services shall be provided during the Schematic Design Phase for projects lacking this data and not utilizing the Pre-Schematic Design Phase.

3. Zoning Analysis

a. The Consultant shall provide a Zoning Analysis identifying all relevant issues including the appropriateness of the project with regard to site, use, bulk, set-backs, height limitations, and the need for any required variances.

b. Provide massing diagrams showing all height, set-back, and sky exposure requirements.

c. Note: this service shall be provided during the Schematic Design Phase for projects not utilizing the Pre-Schematic Design Phase.

4. Building Code and Regulatory Analysis

a. The Consultant shall identify all applicable codes and local laws relevant to the project.

b. The Consultant shall identify building and space occupancy groups, construction classifications, egress requirements, fire separation requirements, energy code requirements, and any other applicable code requirements.

c. The Consultant shall identify code requirements for live loads, ventilation, fire protection, light levels, emergency lighting and power, plumbing fixtures, environmental noise levels, etc.

d. The Consultant shall identify the applicability of local, state and federal environmental and regulatory processes and permits, see Appendix A-2.

e. Note:
This service shall be provided during the Schematic Design Phase for projects not utilizing the Pre-Schematic Design Phase.

5. Sustainable Design

a. Establish the Client Agency's requirements for sustainable design measures.

b. For all projects the Consultant and the Sub-Consultants shall participate in a meeting with the Project Manger, Design Review, Client Agency, and Sustainable Design staff to discuss the project's approach to compliance with Local Law 86, or if LL86 is not applicable, with other required or recommended sustainable design standards. For projects of very limited scope, the purpose of the meeting shall be to identify individual sustainable design and constructionmeasures and goals may be applicable to the project.

c. Regardless of the applicable sustainable design standard, for projects of sufficient scope, the Consultant shall develop a preliminary LEED scorecard, using the appropriate current New Construction, Core and Shell, Commercial Interior, or other LEED rating system, in order to help set sustainable design parameters for the project.

d. The Consultant shall determine the potential and identify strategies to exceed the sustainability tagrets set by LL86, including the possibility of utilizing additional criteria, such as Passive House standards, in order to meet the goals of PlaNYC 2030.

e. Note:
This service shall be provided during the Schematic Design Phase for projects not utilizing the Pre-Schematic Design Phase.

6. Percent for Art

Under its contract with the City of New York, when applicable, the Consultant is required to retain services of an Artist for the design, fabrication, and installation of Artwork. After a project is deemed eligible for artwork, DDC asks the Consultant to participate in a brainstorm meeting considering the project's art opportunities. The Consultant may recommend general locations for the artwork, a concept (i.e. media, site, style, materials), and/or artists to be considered. On occasion a charrette may be held with the community where the Consultant will prepare and present the art component within the context of the proposed project. The Consultant shall gather feedback about the site, art opportunities, and parameters.

7. Master Planning and Urban Design

If DDC and the Client Agency determine that a project requires long-term phasing or multiple-year funding, the project may be designated a Master Plan. Master Plans may be including planning for a single or multiple sites, phased development, new construction, exterior or interior restoration of a building or buildings, or any combination thereof. Master Planning may require all previously described Pre-Schematic services, but shall demonstrate the depth and complexity of research appropriate to a multi-year large scale project.

a. Scope of Study
A Master Plan may encompass not only building design and construction, but also environmental, ecological, regional, land use, economic development, traffic, and community issues as well.

b. Multi-disciplinary Approach
Because of the comprehensive, long-term nature of a Master Plan's scope, the approach to, and implementation of the Master Planning process must be multi-disciplinary throughout its duration. In addition to the standard design professionals, Master Planning may require sub-consultants from such specialized fields as historic preservation, demography, sociology, traffic and transportation, urban planning, environmental planning, and economic development.

c. Inventory and Analysis
Master Plans shall examine a project's ecological, microclimatological, urban design, historical, zoning, and regulatory characteristics, as well as the concerns of pertinent community-based groups and jurisdictional entities as they relate to the project site and any existing or proposed structures. Beyond these requirements, Master Planning requires broad data collection and evaluation to assess the long-term impacts such data would have upon the ultimate planning and design recommendations to be generated. Master Planners shall conduct their inventory to best synthesize data into planning and design issues. These issues must then be prioritized to guide recommended development options.

d. Programming
The Master Plan will investigate the known and anticipated growth needs of the Client Agency in the years to be covered by the Master Plan.

e. Phase One Program
After inventory, analysis, issue identification and prioritization, and the development of various proposals, the Consultant, the Client Agency, and DDC, will choose to pursue one recommended option. This option will be developed to document every phase of the multi-year plan, and will include a program for Phase One and possibly Phase Two of the plan, based on available funding.

f. Public Design Commission Conceptual Review
The Consultant will submit all non-landmarked City-owned projects requiring exterior work to the Public Design Commission (PDC) for conceptual approval. The extent and format for the presentation or submission is outlined on the PDC website and will be confirmed by the DDC Public Design Commission Liaison.

D. PRE-SCHEMATIC DESIGN DELIVERABLES

1. Progress Meeting Minutes

The Consultant shall prepare Minutes, following the DDC format, within three working days of each Progress Meeting. Criteria for these meetings appear in Appendix A-3 under "Meetings". The Consultant shall transmit the minutes to the DDC Project Manager for distribution to all attendees. Minutes shall summarize:

a. List of attendees

b. Decisions Made and by whom

c. Open Issues, identifying the persons responsible for resolution, with due dates.

2. Pre-Schematic Design Report

The Pre-Schematic Design Report shall contain descriptive data and graphics in support of recommendations made concerning the project. The Report will serve as a public record in support of future building program decisions. The Report shall contain:

a. Summary of Requirements
Consists of accumulated data, and a full description of the recommendations, which can be used as an architectural program

b. Graphic and Descriptive Documentation
By activity, for current and future space needs

c. Site Analysis
Indicate assets and constraints of the site, including those determined by physical, ecological, and historical characteristics. The report must identify all trees and plant specimens within the site perimeter that are known to be host species for invasive pests. Identify invasive plant species, exsiting street trees, and requirements for new plantings.

d. Appropriate Space Standards
For each applicable activity for current and future personnel

e. Space Requirements
Determination and listing of space requirements for all program spaces including special uses, common use functions, and building services.

f. Individual Work Space Standards

g. Adjacencies and Flow Diagrams
Indicating the required circulation patterns and physical relationships of both internal and external activities

h. Project Space program
Note the functions, space allocations, occupancy, staff, visitors, and size of new facilities. The report shall list usable net area and gross area tabulations, complete for each of the functional requirements of the proposed project. The net area tabulations shall be indicated for all distinct program spaces.

i. Programmatic Inventory and Use
Of all existing spaces, indicating anticipated growth or diminishment of use, adjacency of work space requirements, special purpose areas, facilities to be shared, support areas, and building service requirements

j. Environmental Program Matrix
Prepare a matrix describing preferred environmental conditions for each major type of space in the program. The conditions shall at minimum include access to daylight, orientation views, acoustic needs, temperature and humidity control, air quality, and lighting quality. See sample matrix on www.nyc.gov/buildnyc.

k. Sustainable Design
Provide analysis of applicable sustainable design standards, meeting minutes, and preliminary LEED scorecard.

l. Active Design
Provide analysis of opportunities to utlize Active Design strategies.

m. Preliminary Construction Cost
For each of the alternatives; include in the construction estimate general conditions at ten percent, overhead and profit at fifteen percent, and design contingency at ten percent.

n. Schedule
The Consultant shall present a schedule for approval by DDC for the entire project duration. This includes, but is not limited to, a complete activities checklist with milestones, due dates for all submittals, and the construction duration. Include phasing plan for construction if applicable.

If the Task order or the Project objectives mandate generation of a Master Plan, the Consultant shall develop a Master Plan Report.

o. Master Plan Report
The Report shall be illustrated with sketches, plans, photographs, flowcharts, photographs of models, or computer simulations, drawings, and any additional materials that clarify the conclusions, proposals, and presentation. The report shall be titled, summarized, indexed, and shall be organized in sequence with section headings. The Master Plan Report shall include an executive summary, existing conditions inventory, analysis of inventoried data, identification of planning and design issues, prioritization of planning and design issues, planning and design options, a recommended planning and design option, development phasing, and phased costs. The Report shall provide a recommended and approved Scope of Work and cost estimate for Phase One of the project.

p. Appendices
The Master Plan may require appendices documenting interviews, space planning standards, detailed description of existing site and building systems, detailed cost estimates, rejected alternate development proposals (including reason for rejection), summaries of previous reports and records of research. Sources for all information shall be identified.

q. Drawings
The Master Plan shall include rendered perspective drawings of the site showing all proposed work. It shall also include drawings of each phase of the plan, as well as any pertinent resource inventory and maps. These drawings and maps shall be reproduced in the body of the report and at an appropriate presentation size.

r. Phase One Description
The Consultant shall include a description of the first phase of work to be completed in the accepted plan. A description of the second phase may also be required.

3. Report Format Requirements

The Consultant shall prepare and submit six copies of the required report to DDC unless otherwise specified in the Task Order or Project Objectives. The report shall also be submitted as a pdf digital file. Pre-Schematic reports shall be:

a. Organized with a table of contents

b. Summarized, containing an executive summary, descriptive text, implementation schedule, design calculations, cost estimates, and include a log of meeting minutes

c. Illustrated with drawings to appropriate scale and photographs, as required

III Schematic Design

A SCHEMATIC DESIGN GOALS

In the Schematic Design Phase, the Consultant shall investigate issues and evaluate options for meeting the Client Agency's programmatic needs in a built form that addresses site conditions, context, regulatory requirements, sustainability targets, and budgetary constraints. The goal of this phase is to establish a strong design direction, achieve consensus on site planning and operational issues, and establish the general layout of rooms and spaces. Clear and comprehensive approaches towards sustainability and energy code compliance, and Active Design must be identified.

The Consultant begins the design process by investigating existing conditions, identifying opportunities and constraints inherent in the site, the program, or the building type, and establishing design parameters in dialog with the Client Agency and DDC. The Consultant explores spatial and material responses to the Project Objectives. By the mid-point of the phase, the Consultant shall present no fewer than three concept options, or as many as may be required to fully explore applicable design alternatives. The Consultant shall lead a presentation of these options for the stakeholders, from which a general consensus toward a preferred scheme should emerge. The preferred scheme shall then be developed more fully for the final Schematic Design submission.

B. SCHEMATIC DESIGN PROCESS

The Schematic Design process includes:

1. Schematic Design Kick-Off Meeting

This meeting of the Consultant, the Client Agency, DDC Project Manager, DDC Team Leader, and other DDC team members as required shall occur at the start of the phase. Project requirements shall be reviewed and project information shall be distributed, including:

a. Requirements of the Contract
Including; the Agreement, the Task Order, the Project Objectives, and this Guide

b. Identification of responsibilities, expectations, contact information, and establishment of protocols for all stakeholders

c. Project Intent and Goals including LEED certification level or other sustainablility targets

d. Project Scope

e. Client Agency Standards and User Needs

f. Budget

g. Site Data
Including information as required about metes and bounds surveys, topographical surveys, borings, etc.

h. Outline of criteria for Progress or Review Meetings

i. Schedule
The Consultant shall present a draft schedule for approval by DDC for the entire

project duration. This includes, but is not limited to, a complete activities list with milestones, due dates for all submittals, contract bid, award, registration, and the construction duration.

j. Approvals required from other agencies, authorities, stakeholders, or entities including the Public Design Commission or the Landmarks Preservation Commission, and identification of responsible party.

k. Review of Submission Requirements for this phase in coordination with overall project scope and expectations. The project team will review the items listed below under Schematic Design Tasks and Schematic Design Deliverables and make a determination as to which items shall be required.

2. Progress or Review Meetings

The DDC Project Manager schedules progress meetings. The Consultant shall attend and bring the necessary materials to ensure a productive meeting. It is the intent that these meetings be active design work sessions with all stakeholders participating in the process. The meetings shall be recorded by the Consultant in meeting Minutes. Criteria for these minutes appear in Appendix A-3 under “Minutes”.

The Consultant shall provide an agenda to DDC at least three days prior to each meeting. A list of typical topic subjects in chronological order follows in the tasks and deliverables sections of this chapter.

3. On-Board Reviews

For projects with accelerated delivery schedules, the DDC Project Manager may request that the Consultant and DDC Review Team participate in on-board reviews. On-board review consists of a review of documents at the time of submission by DDC review staff in the presence of the Consultant and all pertinent sub-consultants. Such reviews may take place at DDC or in the Consultant’s office. The Consultant shall record all comments made by the reviewers as part of the meeting minutes, and submit said minutes for review.

4. Presentation of Design Options

At the approximate mid-point of the phase, the Consultant shall present design options to the project team for review. One of these options may be selected by consensus as the preferred scheme, or a preferred scheme may emerge from a combination of elements from several optiond. Each schematic option must be accompanied by a cost estimate, at the same level of development, as well as zoning and code analyses demonstrating compliance. Strategies for sustainable design and Active Design should be presented.

5. Presentation of the Preferred Schematic Design

At the conclusion of the phase, the Consultant shall present the preferred schematic design scheme to DDC and the Client Agency. The Consultant should submit complete zoning and code analyses, cost estimate, and room inventory demonstrating compliance with the approved space program. The Consultant shall also provide descriptive narratives of the existing and or proposed structural, mechanical, electrical, and plumbing systems, life-cycle analyses of the mechanical systems, LEED checklist, and other documents as required to demonstrate compliance with all regulatory requirements and the requirements of the Project Objectives.

6. Commissioning

Commisssioning (Cx) is the process where the installation, calibration, and performance of building syatems and assemblies are verified with the Owner’s Project Requirements (OPR), Basis of Design (BOD), and the construction documents. Consultants on projects where Cx is required shall prepare preliminary drafts of the OPR and BOD once a Preferred Schematic Design has been selected.

7. Regulatory Approvals

The Consultant shall meet with regulatory agencies as necessary and shall cooperate in obtaining all required approvals. The Consultant shall submit documents to all applicable regulatory agencies or authorities as directed by DDC.

8. Design Review

The Consultant shall submit documents for design review to DDC and the Client Agency, who will issue written comments to the Consultant. The Consultant will in turn submit written responses to each comment. Responses should be submitted within ten business days, shall address all review comments, and shall address the spirit of the comment as well as the specific issue. Consultant's response should be submitted on the same form indicating the design review comments. A meeting to discuss the comments will be conducted if the consultant responses are not acceptable or as otherwise required. If so directed, the Consultant shall resubmit all or portions of the Schematic Design submission to the satisfaction of the reviewers.

9. Approvals to Proceed

Upon approval of the submission, DDC shall issue a Notice to Proceed to the Consultant to commence the next phase of the work.

C. SCHEMATIC DESIGN TASKS

Consultants for projects including a Pre-Schematic Design Phase may have already initiated many of the following tasks. In that case, the findings submitted during the Pre-Schematic Design Phase shall be updated and elaborated upon in greater detail, with the express intent of informing the Schematic Design. For each project, as applicable, the project team should organize the work in the Schematic Design Phase to follow the general outline below:

Note:
See Appendix A-1 for DDC Design Criteria.

1. Phase 1: Investigation

a. Site and/or existing building conditions analysis. The Consultant shall study the site and the surrounding areas to determine the suitabilty of the existing site conditions for the proposed work. At minimum, the Consultant shall prepare an inventory of site plantings, subsoil conditions and soil bearing capacities, offsite and on-site views, existing site amenities, and constraints for site development. The Consultant shall identify the types, functions, and uses of other facilities proximate to the site and identify any potential conflicts or areas of concern. The Consultant shall identify all means of site access, including pedestrian, vehicular, parking, service, etc. and note the location, type, and distance to all forms of public transportation. The Consultant should also note any issues or concerns relative to handicapped accessibility.

b. Building code and zoning analysis. Identification of possible need for building code clarification or determination, zoning override, or special review with regulatory agencies or authorities.

c. Program and operational analyses. Review of precedents. opportunities, constraints, adjacencies, operations, and maintenance.

d. Phasing, Staging, and client requirements for occupancy or relocation during construction. Identify any phasing or staging requirements for the project, based on the Client Agency's schedule for occupancy, including options for swing space and other needs.

e. Sustainable Design
See Pre-Schematic Design for typical tasks. In addition: Develop an appropriate energy analysis methodology, and propose alternative energy efficiency measures and HVAC options to be analyzed. Research and document occupancy schedule and applicable energy rates. If pursuing LEED certification under Local Law 86, register the project with the USGBC.

f. LEED or Sustainable Design Workshop
The Consultant and the sub-consultants shall conduct a meeting in which required and recommended environmental design features will be reviewed and discussed. Sustainable design goals for the project will be established.

g. This phase culminates in the delivery of the findings in an Investigation Interim Report.

2. Phase 2: Schematic Options

a. Blocking and stacking, massing, site planning.

b. Evaluation of program and preparation of schematic design options.
The consultant shall prepare as many alternative design options as necessary to fully explore the full range of opportunities, with a minimum of three. Each scheme shall demonstrate compliance with the code and zoning analyses and shall include outline plans, elevations, and sections. The Consultant shall prepare comparative engineering narratives, life cycle costs, and preliminary cost estimates clearly identifying the differences between each scheme.

c. This phase culminates in the presentation of multiple schemes to the project team. The project team will evaluate each scheme, and make a recommendation for a preferred scheme. The Consultant shall submit all the schemes in an Options Interim Report. The DDC Project Manager and Team Leader may indicate that the scope does not warrant multiple solutions and may relieve the Consultant of this requirement.

3. Phase 3: Preferred Scheme

a. Preferred scheme development and validation. The preferred scheme may combine elements from the options presented earlier. All engineering systems shall be validated by preliminary analyses and findings.

b. Presentation of preferred scheme including all sub-consultant specialties. Following this presentation, the Schematic Design deliverable package shall be submitted for review.

4. Design Considerations: The following elements, among others, shall be studied:

a. Siting and orientation

b. Utilities and infrastructure

c. Urban design and contextual relationships

d. Active design principles

e. Sustainable design and LEED conformance

f. Percent for Art (if not already performed in a pre-schematic phase)
Under its contract with the City of New York, when applicable, the Consultant is required to retain services of an artist for the design, fabrication, and installation of Artwork. After a project is deemed eligible for artwork, DDC asks the Consultant to participate in a brainstorm meeting considering the project's art opportunities. The Consultant may recommend general locations for the artwork, a concept (i.e. media,

site, style, materials), and/or artists to be considered. On occasion a charrette may be held with the community where the Consultant will prepare and present the art componenet within the context of the project. The Consultant shall gather feedback about the site, art opportunities, and parameters.

g. Configuration and massing

h. Program function

i. Adjacencies and circulation

j. Maintenance and Operation

k. Initial and Life-cycle Cost

l. Building materials

m. Structural systems

n. Mechanical systems & fire protection

o. Electrical & fire alarm systems

p. Plumbing systems

q. Data and telecommunications systems

r. Security needs

5. Zoning Analysis

a. The Consultant shall provide a Zoning Analysis identifying all relevant issues including the appropriateness of the project with regard to site, use, bulk, set-backs, height limitations, and the need for any required variances.

b. Provide massing diagrams showing all height, set-back, and sky exposure requirements.

c. Note:
If this design service was included in a Pre-Schematic Design Phase, the findings shall be updated during the Schematic Design Phase.

6. Building Code Analysis

a. The Consultant shall identify all applicable codes and local laws relevant to the project.

b. The Consultant shall identify building and space occupancy groups, construction classifications, egress requirements, fire separation requirements, energy code requirements, and any other applicable code requirements.

c. The Consultant shall identify code requirements for live loads, ventilation, fire protection, light levels, emergency lighting and power, plumbing fixtures, environmental noise levels, etc.

d. Note:

If this design service was included in a Pre-Schematic Design Phase, the findings shall be updated during the Schematic Design Phase.

7. Sustainable Design

If applicable, strategies for energy-efficient heating, ventilation and cooling, onsite energy generation, daylighting, stormwater and wastewater management, and/or active design should be illustrated diagrammatically..

8. Commissioning Agent

If the project is intended to qualify for the Enhance Commisssioning credit under the LEED rating system, the Commissioning Agent's involvement in the design process must begin no later than this stage.

9. Energy Analysis

Subsequent to approval of the preferred schematic design by DDC, the Consultant shall perform a computerized analysis of the proposed HVAC central plant and distribution options in accordance with the approved Energy Analysis Plan developed during the investigation phase of Schematic Design. The Energy Analysis must show compliance with Local Law 86 energy cost reduction requirements or other required standard. Each proposed energy efficiency measure shall be analyzed separately and compared to the baseline model in order to determine its payback period. The analysis shall be submitted in report form.

10. Active Design

The Consultant shall identify strategies for incorporating Active Design strategies to promote physical activity within the building and/or on the site.

11. Public Design Commission and Landmarks Preservation Commission

The Consultant will submit all City-owned projects requiring exterior work to the Public Design Commission (PDC) as part of basic services at two phases of development; conceptual, if required and not part of a pre-schematic phase, and preliminary . The extent and format for the presentation or submission is outlined on the PDC website and will be confirmed by the Public Design Commission Liaison. Projects accurately described as "replacement in kind" have minimal requirements.

12. Value Engineering

If requested by the Office of Management and Budget (OMB), a Value Engineering (VE) Study may occur before final acceptance of the Schematic Design Submission. Participation by the Consultant, if not explicitly stated in the Task Order or Project Objectives, will be considered a supplemental service.

13. Percent for Art Artist Selection

Panel 1 - Artist Selection Meeting

The Consultant will present the preferred schematic design and art opportunities to the Artist Selection Jury. Presentation includes: project scope, site designs, art opportunities, budget, schedule, and other considerations meaningful to the client, context, and community. The Consultant shall participate in the artist selection as an advisor to the jury.

Artist Orientation Meeting

The Consultant shall brief finalist artist candidates about the project site, location, and community context. The Consultant shall present and distribute seven digital file copies of the current design materials to the artist finalists. The materials will include: a project narrative that includes project history, mission, vision, and scope; a design description that includes site map, existing site photos, proposed plans, and renderings or other visuals that will inform the artist about the project, site, and opportunities; community profile; drawings of identified art opportunity locations; project sponsor information. The Consultant should be available to respond to email correspondence from the artists moderated by the City.

Panel 2 - Finalist Artist Interviews Meeting

The Consultant is required to present a brief overview of the current project to the Artist Selection Panel.

D. SCHEMATIC DESIGN DELIVERABLES

1. Meeting Minutes

The Consultant shall prepare Minutes, following the DDC format, within three working days of all Meetings. Criteria for these minutes appear in Appendix A-3 under "Meetings". The Consultant shall transmit the minutes to the DDC Project Manager for distribution to all attendees. Minutes shall summarize:

a. List of attendees

b. Decisions made and by whom they are made

c. Open issues and the schedule and persons responsible for resolution

2. Schematic Design Interim submission I – Investigations Phase

a. Site and or existing building analysis

b. Zoning Analysis
Demonstration of compliance with NYC Zoning Resolution, including set-backs, height limitations, and identification of any required or recommended variances

c. Building Code Analysis
Demonstration of compliance with NYC Building Code including Building Classification, Construction Classification, Occupancy, Egress Compliance, Fire Separation, Energy use, etc.

d. Summation of opportunities, constraints, adjacencies, operation, and maintenance

e. Sustainable Design
Describe required level of Local Law 86 compliance, or compliance with other standard if appropriate. Provide minutes of sustainable design workshop. Include latest LEED scorecard, annotated with descriptions of the project's specific sustainable design startegies, and confirm status of LEED registration with USGBC if applicable.

f. LEED and/or environmental components

3. Schematic Design Interim submission II: Options

a. Blocking and stacking, massing, and site planning diagrams for each option

b. Outline plans, elevations, and sections for each option

c. Engineering narratives for each system proposed including usage, concepts, materials, requirements, noise control, and life cycle costs.

d. Preliminary project cost estimates for each option

e. Description of Local Law 86 compliance, or other sustainability strategy if appropriate

f. Diagrammatic illustrations of sustainability measures and active design strategies

4. Schematic Design Final Report

(The report shall include the documentation of the previously submitted Investigation and Options Interim Reports as appendices)

a. Project objectives
Statement of project objectives

b. Existing Conditions
Review and documentation of existing conditions, including MEP systems

c. Program Requirements
Review and documentation of program requirements

d. Preferred Scheme
Presentation of the recommended design, including analysis of architectural and engineering concepts and suitability to program requirements

e. Site Design
Provide description of site concept plan. In addition, for projects with no Pre-Schematic phase, identify all trees and plant specimens known to be host species of invasive pests, identify invasive plant species, and requirements for street trees.

f. Circulation Study
A diagrammatic circulation study showing horizontal and vertical circulation is required. The circulation study will include an elevator analysis and recommendations for the number of elevators, type of elevator systems, and type of control systems.

g. Active Design Strategies

h. Energy Performance data
Specify the preferred schematic design's exterior wall construction, rrof construction, slab-on-grade floor construction, typical floor construction, window ratio, skylight ratio, fenestration types, and shading devices. Provide all data required to calculate energy consumption by electrical, mechanical, and plumbing systems, and to calculate energy generation or co-generation by on-site systems, if any. Consultants shall also provide a summary of the baseline requirements per the New York City Energy Conservation Code for all applicable new work.

i. Energy Analysis
For LL86 projects consultants shall provide a complete energy analysis of the preferred schematic design. The analysis shall include a description of the analysis methodology and computer software used, a description of the building model used, and documentation of the building occupancy schedule, source of weather data, and source of energy rates used. The analysis shall include a summary comparison of energy consumption between the proposed building and baseline building on a monthly and yearly basis, and a summary comparison of energy cost on a yearly basis. Summary figures shall be broken down by energy source (gas, electricity, etc.). The analysis shall also provide a breakdown of energy consumption by end uses. The analysis shall provide the energy consumption and energy cost savings for each of the perferred schematic design's proposed energy efficiency measures as compared to the baseline, indicating the payback period for each measure.

j. Meeting Minutes

k. Structural, HVAC, Fire Protection, Electrical and Fire Alarm, and Plumbing
Narrative descriptions of the following; existing site infrastructure, building structural system and condition, electrical, mechanical, and plumbing systems, fire alarm and or fire protection systems, and security systems. Code requirements shall be outlined. Tabular listing of desired foot candle levels for all spaces. New service requirements shall be described. Connection or service upgrade requests to utilities shall be submitted (including load letters and preferred point of entry for new utilities). The Consultant must determine if acoustical design is required, including supplemental acoustical testing report and analysis as indicated in the HVAC Design Criteria.

l. Schedule
The Consultant shall present a schedule for approval by DDC for the entire project duration. This includes, but is not limited to, a complete activities checklist with milestones, due dates for all submittals, and the construction duration.

m. Phasing of Construction

The Consultant shall provide a narrative description and diagrams for proposed phasing and staging.

5. Drawings

Schematic Design documents shall illustrate the resolution of the program requirements and shall be dimensioned and scaled, showing floor-to-floor heights, and room sizes. The Consultant shall demonstrate the design's appropriateness in terms of economic, functional, and aesthetic factors.

a. Site Plan
As required by the nature of the project, a site plan shall indicate materials, physical features and site furnishings, major grading, utilities, property or project limit, easements, buildings or structures on and adjacent to the project, and plantings.

b. Floor Plans
Floor plans shall be prepared for all occupied floors within the scope of the project. Floor plans shall indicate all program spaces. Corridors, stairs, elevators, exits, mechanical chases, and compliance with accessibility requirements shall be evident.

c. Roof Plan
Roof plans shall be prepared indicating the roof storm water drainage features, all roof mounted equipment, and skylights.

d. Exterior Elevations and Sections
Exterior elevations and or building sections will be prepared indicating fenestration, entry, access, site features, and materials.

e. Engineering Drawings
Engineering drawings shall indicate structural, HVAC, fire protection, electrical and fire alarm system, and plumbing systems, indicating path of services, locations of stacks and risers, and equipment service room space requirements. Drawings shall indicate point of entry for utility company services and connections to available services on site. In addition HVAC/Fire Protection engineering drawings shall indicate the following:

- **i.** System types, capacities, and zoning
- **ii.** Location and spatial layout of major equipment
- **iii.** Main ductwork routing

f. Existing Conditions Drawings
Existing conditions shall be surveyed by the Consultant and or sub-consultants. Drawings for all affected areas within the project scope shall be prepared by the Consultant and/or sub-consultants showing areas and elements requiring demolition, salvage, protection, impact upon design, and integration with proposed design.

g. Key Plans
Key plans shall adequately describe project location and orientation.

h. Axonometric Drawing and Perspectives
Axonometric drawings and perspectives and other sketches, shall be prepared as necessary to fully illustrate and document all major elements of the design and massing.

6. Study Models

Study models will show three-dimensional volumes and proportions, and when necessary, the contextual relationship to surrounding buildings and streetscape. Study models are of particular importance in the design and evaluation of new buildings and building additions, even of limited scope and area.

7. Submission Requirements

After the approval of the Schematic design, five copies of the drawings of the selected scheme, with an additional half-sized set , and six copies of the report are required for A&E review unless noted otherwise in the Task Order or Project Objectives. Full size drawings shall be no larger than 24"x36" unless otherwise approved by DDC. All materials shall also be submitted as pdf digital files. Schematic reports shall be:

a. Bound – with front and back cover sheets

b. Organized with a table of contents

c. Include a project fact sheet with information including net and gross area, block and lot number, zoning district, Community Board, Council District, and street address is required. List all applicable codes, design guidelines, or other standards.

d. Summarized, containing an executive summary, descriptive text, implementation schedule, design calculations, cost estimates, and include a log of meeting minutes

e. Illustrated with drawings to appropriate scale and photographs, as required

8. Cost Estimate

Provide a summation of construction costs for each division per Construction Specifications Institute (CSI) format in the estimate, as appropriate to the project. Include in the cost estimate general conditions at ten percent, overhead and profit at fifteen percent, and design contingency at ten percent. The Schematic Design cost estimate shall reflect NYC Prevailing Wage Rates. Sales tax shall not be included in the estimate.

If additional funding is necessary and the project scope cannot be reduced, the responsibility to secure such additional funds rests with the Client Agency. The Consultant, along with DDC staff, will be available to support such requests by providing technical information and scope substantiation.

9. Identification of Proprietary Items

Under normal circumstances, proprietary items are not permitted. If no alternate items exist such that a proprietary item must be specified, the responsible entity shall submit a statement to that effect. The statement shall demonstrate the need for any such proprietary item and the lack of acceptable alternatives.

a. In conformance with the City's Procurement Policy Board Rules, the Consultant shall specify at least three manufacturers or fabricators for an item, followed by the words "or approved equal". The specifications shall also include a description of the key functional criteria for the item, in order to establish a standard by which a potential substitution can be evaluated. These requirements are designed to permit competition.

b. If it is not feasible to list three manufacturers or fabricators, DDC may, in rare circumstances give the Consultant approval to list fewer than three manufacturers or fabricators. Even if the Consultant obtains the necessary approval, the words "or approved equal" must be included, as well as a description of the key functional criteria for the item.

10. Presentation Documents

Various presentation documents are required by the PDCand other regulatory agencies. The presentation materials, intended for regulatory review or for use at public meetings, may be retained by DDC. In addition, presentation materials needed to resolve open design issues, including models and sketches, may be requested by the DDC Project Manager. Photographs of models and presentation materials will be submitted to DDC upon request.

11. Design Review Comments Response

The Consultant is required to respond in writing to comments from the Architecture & Engineering and Technical Services review groups of DDC. The A&E Project review form contains a column for the Consultant to respond to the individual comments . Consultant's responses will only be accepted on this form. The Consultant shall revise the documents to reflect the comments or explain in writing why a revision should not be done.

12. Comment Review Meeting

The Consultant shall attend a Comment Review Meeting to facilitate the communication of measures or actions taken to respond or resolve design issues and comments. The Consultant may present additional drawings, specifications, or data as required for clarification or resolution of outstanding design issues and comments.

IV Design Development

A. DESIGN DEVELOPMENT GOALS

In the Design Development Phase, the Consultant shall continue the design process, advancing the design presented at the final stage of the Schematic Design Phase. The Consultant is expected to validate, develop, and refine the project, including all design elements, building systems, materials, details, equipment, maintenance and operation expectations, and both initial and life-cycle costs.

Any open issues regarding zoning or code compliances should be resolved during the DD phase. If determinations from DOB are required, the consultant should obtain written responses prior to final submission.

The Consultant shall modify the design as required to remain within the project budget. The Consultant shall notify DDC if they believe that the project scope cannot be achieved within the approved budget, but this does not relieve the Consultant of their responsibility to deliver a project that adheres to the budget.

B. DESIGN DEVELOPMENT PROCESS

The Design Development process includes:

1. Design Development Kick-Off Meeting

This meeting of the Consultant, the Client Agency, DDC Project Manager, DDC Team Leader, and other team members as required shall be held at the start of the phase. Project requirements shall be reviewed and reconfirmed as necessary, including:

a. Project Schedule
Review the updated project schedule

b. Project Decisions
Review all significant project decisions

c. Review Resolutions of the Previous Phase
Assure that all parties clearly understand the resolution of issues as indicated by the approved Schematic Design documents, so that Design Development may proceed.

2. Progress or Review Meetings

The DDC Project Manager schedules progress meetings. The Consultant shall attend and bring the necessary materials to ensure a productive meeting. It is the intent that these meetings be active design work sessions with all stakeholders participating in the process. The meetings shall be recorded by the Consultant in meeting Minutes. Criteria for these minutes appear in Appendix A-3 under “Minutes”.

The Consultant shall present the project through the use of drawings, renderings, material samples and cut sheets, estimates, and design calculations. All decisions will involve aesthetic, technical merit, and economic considerations. At the end of the Design Development Phase all major design decisions are made final.

The Consultant shall prepare an agenda at least three days prior to each meeting. Design Development discussions shall at a minimum involve the following topics:

a. Code compliance and design approach

b. Fulfillment of programmatic spatial and adjacency requirements

c. Appropriateness of proposed structural and engineering systems

d. Efficiency of proposed design and systems

e. Review, coordination, and integration of sustainable design goals

f. Employment of Active Design principles

g. Material selection

h. Furniture layout

i. Hazardous material identification and removal

j. Cost Estimate

k. Proprietary Items and approval process

l. Special Experience requirements and approvals

3. On-Board Reviews

For projects with accelerated delivery schedules, the DDC Project Manager may request that the Consultant and DDC Review Team participate in On-Board reviews. On-board review consists of a review of documents at the time of submission by DDC review staff in the presence of the Consultant and all pertinent sub-consultants. Such reviews may take place at DDC or in the Consultant's office. The Consultant shall record all comments made by the reviewers as part of the meeting minutes, and submit said minutes for review.

4. Presentation and Acceptance

At the conclusion of the phase, the Consultant shall make a presentation of the Design Development materials to DDC and the Client Agency. Public presentations may be also required. The Consultant shall coordinate with the DDC Project Manager and Team Leader concerning all materials and information to be included in the presentation documents.

5. Regulatory Approvals

The Consultant shall meet with regulatory agencies as necessary and shall cooperate in obtaining all required approvals. The Consultant shall submit documents to all applicable regulatory agencies or authorities as directed by DDC.

6. Design Review

The Consultant shall submit documents for design review to DDC and the Client Agency, who will issue written comments to the Consultant. The Consultant will in turn submit written responses to each comment. Responses should be submitted within ten business days, responding to all comments, and shall address the spirit of the comment as well as the specific issue. A meeting to discuss the comments will be conducted if the consultant responses are not acceptable. If so directed, the Consultant shall resubmit all or portions of the Design Development submission to the satisfaction of the reviewers.

7. Approval to Proceed

Upon approval of the submission, DDC shall issue a Notice to Proceed to the Consultant to commence the next phase of the work.

C. DESIGN DEVELOPMENT TASKS

During Design Development the Consultant shall prepare the following documents or analyses as necessary:

Note:
See Appendix A-1 for DDC Design Criteria.

IV DESIGN DEVELOPMENT

1. Required Materials

a. Zoning and Building Code analysis updated to reflect current design

b. Site plan, including plantings, surface materials, site furnishings, and grading

c. Floor plans of all occupied floors

d. Roof plan

e. Reflected Ceiling Plans

f. Elevations

g. Sections

h. Typical roof and wall sections

i. Utility layouts

j. Materials selection

k. Furniture selection

l. Elevator types

m. Structural system and foundations

n. Mechanical systems and equipment

o. Plumbing systems

p. Lighting layouts

q. Electrical systems and equipment

r. Data and telecommunications systems

s. NYCECC energy analysis

t. Additional documents listed in the Task Order or Project Objectives

2. Sustainable Design

Consultants shall review with DDC and the client agency applicable energy and water conservation measures as well as methods to improve the indoor environment. Consultants shall evaluate and incorporate appropriate sustainable design strategies to comply with performance requirements and to achieve goals identifed ion the Schematic Design Phase. If LL86 applies to the project scope, the Consultant shall also prepare a detailed energy analysis to help evaluate recommended energy conservation measures and to confirm energy reductions. The LL86 energy analysis will also serve as the back up documentation for reporting to the Mayor's Office of Environmental Coordination. For LEED projects, consultants shall incorporate systems to achieve targeted credits and update the LEED plan with responsible parties and actions to be completed.

3. Active Design

Projects shall incorporate the active design strategies identified in the Schematic Design Phase.

4. Budget Estimates

The Consultant shall monitor costs during Design Development and modify the design as required to stay within the budget.

5. Cost Estimating

A cost estimate in Construction Specification Institute (CSI) format must be submitted. For each item or combination of items in the cost estimate, identify the quantity required, the unit of measurement, the unit cost, and the total cost. Provide a summation of construction cost for each trade in the estimate. Include in the cost estimate general conditions at ten percent, overhead and profit at fifteen percent, and design contingency at ten percent. Prevailing wage rates shall be incorporated when applicable. Sales tax shall not be included.

If additional funding is necessary and the project scope cannot be reduced, the responsibility to secure such additional funds rests with the Client Agency. The Consultant, along with DDC staff, will be available to support such requests by providing technical information and scope substantiation.

6. Hazardous Materials Survey

DDC's Bureau of Environmental and Geotechnical Services (BEGS) typically perform hazardous material surveys including testing based upon the areas of work identified by the Consultant. BEGS will provide a report and abatement documents. The Consultant is required to incorporate the presented materials into the contract documents.

On jobs on which BEGS is not handling hazardous materials, the Consultant shall identify hazardous materials that may be affected by the proposed work and shall prepare a report.

7. Multiple Construction Contracts

The DDC Project Manager and Team Leader will establish with the Consultantif the project shall be prepared as multiple-prime contracts or a single contract. For multiple-prime contracts or where applicable, adherence to the Wick's Law requires that the Consultant prepare separate sets of drawings and specifications for four or more contracts. The documents shall typically be organized as follows:

a. Contract No. 1
General Construction work, including site work and vertical transportation

b. Contract No. 2
Plumbing work, including standpipe system, if required

c. Contract No. 3
Heating, Ventilating, Air Conditioning, and Fire Protection work, including sprinkler systems, as well as combined standpipe system, if required

Note:
The sprinkler system work, which is part of Contract No.3, shall be shown and detailed on drawings separate from all other work within that contract.

d. Contract No. 4
Electrical work, fire alarm, data & telecommunications systems, A/V systems.

e. Other Contracts
May include, if necessary, separate packages for such specialties as fuel tanks, curtain walls or foundations

8. Percent for Art

a. Core Review Group
Upon selection and contracting with the Artist, the Consultant becomes part of the Core Review Group (CRG). The CRG acts as the client to the Artist and ismade up of the consultant, client representatives, DDC Percent for Art Office, and the Department of Cultural Affairs. .

b. Artwork Conceptual Design
The Consultant shall make available to the Artist or request that the design and sponsor agencies make available background information on the project and the

site that may be relevant to the conceptual development and eventual installation of the artwork. This shall include a detailed description of conditions applicable to that oportion of the site where the artwork will be located (Public Buildings: lighting, electrical devices, HVAC elements, etc. Infrastructure/Plazas: underground utilities).

Upon the Artist's submission of the Conceptual design to the Consultant, the Consultant shall arrange for review of the Conceptual design by the CRG. The Artist shall make such revisions to the Conceptual Design as may be requested by the CRG pursuant to the foregoing review.

During Design Development the Artist and Consultant shall work together to integrate the artwork into the project design.

c. Artist Contract and Payments

A contract between the Artist and the Consultant will be adapted for each project from a standard form. The Consultant reviews and executes the Artist and Consultant Contract. Standard contract types used are; Design/Build, Design Only, and Artwork Acquisition. The Consultant will be responsible for the following: 1) monitoring compliance, and acting as liaison, with the Artist with regard to certain procedures as set forth in the Agreement; 2) making payments to the Artist for services performed; 3) integrating the artwork created with the design of the underlying project, advising the Artist of all applicable statutes, ordinances, and regulations of any governmental regulatory body, whether federal, state, or city, having jurisdiction over the project.

The Consultant shall review requisitions for payments promptly upon submission and within ten busines days shall submit the requisition to DDC for payment or notify the Artist as to the reasons why the requisition cannot be processed. DDC will support off-cycle billing for Percent for Art related invoices. The Consultant shall pay the Artist for work performed under this Agreement no later than ten business days after receipt of payment to the Consultant by the City. The Consultant shall be solely responsible for making payments to the Artist.

d. Community Board

The Artist is required to present the artwork to the Community Board prior to going to the PDC. The scheduling of such presentation will be coordinated by the Client Agency. Background information about the building or site project shall be made available by the Consultant for such Community Board meetings.

e. Public Design Commission - Artwork Conceptual Design review

Following presentation of the conceptual design to the Community Board or if no such presentation is made, after the conceptual design is ap[proved, the DDC and DCA Percent for Art staff shall submit the Conceptual design to the Public Design Commission for review. During the period in which the Design Commission is considering the conceptual design, the Artist and the Consultant shall be available to meet with the Design and Sponsor Agency, the Percent for Art Program, and the Design Commission to discuss the conceptual design.

f. Budget Procedure

Final Art Allocation shall be determined at the completion of the Design Development Phase.

9. Commissioning

For projects where commissioning is required such as LEED projects, the Consultant shall coordinate with the commissioning agent, prepare required documents, and respond to commissioning comments on the design development submission.

If the project is intended to qualify for the Enhanced Commissioning credit under the LEED rating system, the commissioning agent must be involved at the beginning of Design Development so that preliminary systems designs can be vetted and alternatives explored. Delaying the commissioning agent's participation beyond this stage will likely disqualify the project for the Enhanced Commissioning credit.

D. DESIGN DEVELOPMENT DELIVERABLES

Deliverables for Design Development shall be organized in accordance with DDC requirements for Single or Multiple Construction Contracts. Drawings must be coordinated between disciplines and organized according to trade. They must include developed site plans, floor plans, elevations, building and wall sections, material selections and finishes. Outline Specifications and a Cost Estimate shall be included. The Consultant shall submit documents for design review by DDC, the Client Agency, and all regulatory agencies. Design Development deliverables include the following:

1. Progress Meeting Minutes

The Consultant shall prepare Minutes, following the DDC format, within three working days of Progress Meetings. Criteria for these minutes appear in Appendix A-3 under "Meetings". The Consultant shall transmit the minutes to the DDC Project Manager for distribution to all attendees. Minutes summarize:

- **i.** List of attendees
- **ii.** Decisions made and by whom they are made
- **iii.** Open issues and the schedule and persons responsible for resolution

2. Design Development Submission

a. Letter of Transmittal

Include signatures of Consultants, including a description of the building and site with comments and description of significant design features. The letter of transmittal shall explain and reconcile any differences between the scope of work described in the Task Order or Project objectives and the submitted design.

b. Design Development Reports shall have:

- **i.** Covers –front and back with continuous edge binding
- **ii.** Table of contents – organized and with all pages numbered
- **iii.** Project fact sheet with information including net and gross area, block and lot number, zoning district, Community Board, Council District, and street address is required. List all applicable codes, design guidelines, or other standards.
- **iv.** Executive summary, descriptive text, implementation schedule, design calculations, and include a log of meeting minutes
- **v.** Zoning and building code analysis updated as required to reflect design development
- **vi.** Drawings to appropriate scale and photographs, as required
- **vii.** Outline Specifications for all trades
- **viii.** Cost Estimate in CSI format
- **ix.** Renderings or Perspectives - or photographs of renderings and models, when required by the Task Order or Project Objectives.

c. Drawing Requirements

- **i.** Title sheet - information and content per DDC standard, unless directed otherwise by DDC Project Manager.
- **ii.** Six copies of all submittal materials are required for A&E review; an additional three copies are required for the DDC Project Manager and Client Agency unless otherwise noted in the Task Order or Project Objectives. Full size drawings shall be 24"x36" unless otherwise approved by DDC.

3. Identifications

Indications on each drawing, as relevant, shall include:

a. Title block
For information and content, see DDC website. The format must conform to DOB "B-Scan" standards.

b. Scale shall be appropriate to convey the required information. A graphic scale shall be included on all sheets.

c. North Arrow on all plans.

d. Key Plan showing location and orientation.

e. Legend for all symbols.

f. General Notes

g. Room Designations in all spaces, using the same names, room numbers, and column designations indicated on all architectural and engineering drawings.

4. Updated Building Code and Zoning Analysis

a. Zoning Data including diagrammatic resolution of urban design requirements.

b. Historic district including location within and limits of the district as applicable.

c. Narrative and drawings

d. Egress and or fire separation diagrams, vertical and horizontal

5. Architectural Floor Plans

The architectural floor plans shall include:

a. Dimensions including room sizes, clearances, and room areas.

b. Building Lines, property lines and column indication grids.

c. Functional Units as programmed in the Task Order or Project Objectives, or as approved in the Pre-schematic or Schematic Design Phases.

d. Material Indications as per conventional graphic standards indicating all new construction.

e. Built-in Furniture and Equipment shall be indicated on all plans.

f. Finished Floor Elevations shall be indicated at every location where the floor elevation changes, such as at top and bottom of stairs, landings, and ramps. Floor elevations shall also be indicated for the floor level in general.

g. Integration of artwork if participating in Percent for Art.

h. Fire Ratings of walls, partitions, ceilings, shafts, roofs, and structural elements such as columns and slabs.

6. Area Calculations

Calculations for area and building volume shall be prepared in accordance with DDC definitions of net and gross area below. Net square feet, gross square feet, floor to floor height, and gross cubic feet shall be indicated for each program space and subtotaled for each floor. Building totals shall also be included for each category.

a. Gross Area measured to the outside of the building walls, in square feet.

b. Net Area is the cumulative usable space within the partitions of each programmatic area. Not included are access and service spaces, shafts, wall thicknesses and structural elements.

7. Architectural Reflected Ceiling Plans

Architectural reflected ceiling plans shall include as applicable:

a. Light Fixtures at ceilings and walls.

b. Air Supply Diffusers and Return Grilles

c. Ceiling Heights at every location where the ceiling elevation changes.

d. Materials

e. Keying in of all building section and construction detail markers.

8. Architectural Exterior Elevations and Building Sections

Architectural exterior elevations and building sections shall include:

a. Exterior Elevations of all vertical exterior surfaces.

b. Building Sections longitudinal and transverse building sections.

c. Site Features such as walls, fences, trees, artwork, street furniture, and adjacent structures.

d. Materials fully annotated.

e. Finish Floor Elevations on building sections and elevations in coordination with plans.

f. Floor-to Floor Heights on building sections.

g. Finished Grades on all elevations and building sections in coordination.

9. Partition Type and Schedule

Keyed to floor plan

10. Interior Elevations

Interior elevations or perspectives and axonometric illustrations shall include:

a. Interior Elevations developed if requested, into one-point perspective sketches to illustrate how all the elements and surfaces are coordinated, and how the ceiling, walls, and floor interface.

b. Axonometric Illustrations if requested, will detail sections through complicated connections and material intersections.

c. Materials including trim, window treatment, registers, controls, textures, and colors.

d. Built-in Furniture and Equipment indicating layout, configuration, and material.

e. Room Designations

f. Vertical Dimensions floor elevations and floor-to-ceiling heights.

11. Interior Design Drawings

Interior design drawings shall indicate the following:

a. Floor Plans fully dimensioned with component systems, furniture layouts, and equipment layouts.

b. Laboratory Equipment

c. Kitchen Equipment

d. Presentation Boards may also be pdf or PowerPoint format
Self-explanatory presentation boards are required at the end of Design Development. These boards shall display all significant materials and finishes. Include catalogue cuts of the light fixtures, grille-work, window treatments, plumbing fixtures and trim, hardware, kick plates, push plates, and all colors, keyed to plans and elevations, with an accompanying written explanation of the concept and rationale of the chosen scheme.

12. Preliminary Door Schedule

indicating at minimum dimensions, operation, fire rating, and material.

13. Furniture and Equipment

When directed in the Task Order, Project Objectives, or by the DDC Project Manager the Consultant shall be responsible for various tasks regarding the selection of furniture, as listed below. Only the preliminary layout of furniture is in included in basic services, all other tasks listed below are supplemental:

a. Preliminary Layout Drawings
The Consultant shall prepare preliminary furniture layout plans to illustrate a conceptual understanding of the function of each room as per Client Agency requirements. Layouts for systems furniture shall be prepared with manufacturer's templates. The plans shall incorporate all loose furniture, systems furniture, built-ins, and equipment.

b. Furniture Cost Estimate
The Consultant shall provide a preliminary cost estimate for all furniture. The estimate shall identify the vendor, item description, order number, quantity, and the costs. See Design Criteria Appendix A-1 for format of estimate.

c. Furniture Selection
The Consultant is responsible for selection of furniture to be purchased through requirement contracts held by DCAS.

d. Anticipating Not-in Contract (NIC) Items
The Client Agency is responsible for specifying and purchasing equipment such as photocopy machines, fax machines, and computers. It is the responsibility of the Consultant, however, to verify that all such equipment fits within the designated space, and to provide for mechanical, electrical, telephone service, and any other physical need for the operation of these items.

e. Procurement Procedures
The Consultant shall meet with the DDC Project Manager to discuss the procurement process of DCAS. Considerations include requirement contracts, vendor requirements, specifications, procurement forms, and the bidding process.

14. Vertical Transportation Drawings

a. Key Plans indicating all areas of work.

b. Floor Plan of elevator machine room showing all elevator control equipment, power equipment, and mechanical equipment.

c. Lobby and machine room plans.

d. Elevator solid state microprocessor controller.

e. Riser Diagram indicating elevator installation, floors covered, elevator travel, and openings.

f. Elevations and Sections of elevator cab.

g. Sketches for controls such as hall buttons.

h. Indicate compliance with ADA accessibility.

15. Models

A presentation model is required for all new buildings and additions if indicated in the Task Order or Project Objectives.

a. Models shall be complete in scope, detail, and color selection.

b. Models shall be titled with the names of the project, the Consultant, the Client Agency, and DDC.

16. Renderings

The Consultant shall submit, if required by the Task Order or Project Objectives, perspective renderings and other presentation materials based on the developed design suitable for reproduction. These renderings and other presentation materials shall belong to DDC and shall be used at public meetings, in publication, and on the DDC website without additional permission or release from the Consultant. Publication in journals or periodicals may require formal release of rights on the part of the Consultant.

a. Renderings shall be titled with the name of the project, the name of the Client Agency, and DDC Division of Public Buildings

b. Digital files are also required and may be transmitted electronically.

c. A signed release form shall accompany all renderings and photographs.

17. Material Boards

a. Exterior Materials
As required by DDC and the LPC. Boards shall clearly show the relation of all new and existing exterior materials and finishes.

b. Interior Materials
As required by DDC and the LPC. Boards shall clearly show the relation of all new and existing interior materials and finishes.

18. Landscape Architectural/Civil Engineering Drawings

Landscape architecture drawings and urban design and site development plans shall include:

a. Current topographic and boring survey performed by DDC based on the approved boring plan generated by the Consultant.

b. Site Layout Drawing shall describe the entire site within the property lines, as well as sidewalks and other access ways outside of the lot lines as established by DDC. It shall be based on a surveyed point of beginning.

c. Engineering Scale shall be 1”=20’-0” unless otherwise approved by DDC Project Manager.

d. Site removals and demolition plan identifying materials for reuse or recycling. Any invasive pest host species plants requiring pruning or removal must be indicated.

Disposal protocols are mandated by New York State Department of Agriculture Markets (NYSDAM). Removal of invasive plant species may also be required.

e. Exterior Paving including sidewalks, driveways, yards, curbs, and curb cuts.

f. Adjacent Structures including walls, fences, railings, buildings with number of stories.

g. Landscaping including plantings and street trees. When street trees are in pavement include tree pit material, ground cover, and planting.

h. Grades to show the surface flow characteristics of the site. Indicate spot grades at entrances, property lines, walls stairs, drain inlets, and major changes in site slope.

i. New and Existing Buildings, indicate number of stories, clearance from building lines, finish floor elevations, building footprint, and overhangs.

j. Encroachments on site and all easements.

k. Show all basic surface and subsurface utilities, including drainage, lighting, electrical, water, irrigation, site utility systems, equipment, fixtures, controls, and any subsurface structures.

l. Integration of artwork as applicable.

m. A full planting list shall be provided with Latin botanical names, common names, sizes and root containment types, assets, and constraints. This plant schedule must be in compliance with the most current recommendations from the NYSDAM and NYCDPR regarding invasive pests and species or hosts.

n. All proposed site-related details, including site related structures and furnishings, their footings, foundations, and reinforcement. Include pertinent drainage structures, pavements, lighting, signage, and other relevant materials, and all dimensions and finishes.

o. Sections and Elevations of such key elements as fences, walls, gates, site furnishings, and significant new plantings. These must be coordinated with the appropriate architectural drawings. Buildings shall be represented only with their volumes, windows, doors, and lacking details unnecessary to site design.

p. Builders Pavement Plan shall be initiated at this phase if required.

q. Stormwater Management design calculations and drawings.

r. Erosion and Sedimentation Control Plan shall be included to prevent soil erosion, sedimentation of sewer systems, and airborne dust pollution during construction. For sites over one acre or for LEED projects, the plan shall conform to applicable state and federal regulations on stormwater discharges from construction activities.

19. Structural Engineering Drawings

As a minimum, the structural drawings shall indicate the following:

a. Consultant shall provide a list of all design criteria such as applicable codes, design guidelines or other accepted standards, copy of the geotechnical investigations and recommendations, soil bearing values, and/or pile capacities.

b. Provide a written description of the basic structural systems to be used on the project (including foundations, substructure, superstructure, lateral force resisting systems, exterior cladding support etc.). Provide enough technical detail and information to fully describe the system for engineering review purposes.

c. Provide a list of the analysis and design software that is being used on the project.

d. Material Information:

i. Concrete: Provide basic material properties for concrete to be used for all the structural elements. Include compressive strength, entrained air content, maximum aggregate size, allowable w/c, unit weight or aggregate type, and anticipated admixtures etc. Pozzolans shall be used to substitute for cement to the maximum extent possible.

ii. Reinforcement: Provide the ASTM material designations for the type of rebar to be used. Provide the type and dosage of structural synthetic fibers to be used.

iii. Masonry: Provide all the ASTM designations for the typical masonry units to be used on the project including bricks, CMU etc. Provide information on the types of mortars and masonry tolerances etc.

iv. Steel: Provide the ASTM material designations for the steel to be used for each item like columns, beams, base plates, built-up beams or girders, truss members, lateral bracing system, piling material etc. Itemize by the AISC shape as applicable, including material types, grades and sizes.

v. Steel Deck: Provide basic information for the type of deck to be used, including profile and depth, ASTM material designation, span conditions, finishes and coatings and method of attachment. Indicate areas where shoring will be required. Provide the deflection criteria.

vi. Wood and Engineered Wood Products: Provide the grade and species for all products in addition to their design requirements, spacing and any special treatments required (pressure treated, fire resistance etc.). Identify the type of sheet goods (OSB, plywood etc.) in addition to their thickness and location for use.

e. Structural Loading Information (include criteria and their source):
All information for loads shall be provided in an easily understood format (tabular preferred).

i. Dead and live loads for floors and roof.

ii. Lateral loads (including wind and seismic loads and their variables).

iii. Snow (including drift areas and intensities).

iv. List of load combinations that will be used and their source.

f. Building Performance Design Criteria:

i. Maximum allowable drift.

ii. Maximum floor and roof live load deflections

iii. Floor flatness and levelness

iv. Maximum allowable horizontal and vertical deflection for members supporting exterior cladding and materials

v. Floor vibration

vi. Floor beam cambering

vii. Shoring

g. Geotechnical Analysis Report by Consultant

h. The drawings submitted shall consist of:

i. A set that is updated and developed from the selected scheme submitted at the schematic phase.

ii. All the structural systems developed and defined so that the design reviewer can fully understand the intent and be able to review the design.

iii. Completed design for all gravity and lateral loads; soils and groundwater loads; wind, snow and seismic loads; equipment and live loads.

iv. Coordinated design with the Architectural, MEP and all other trades.

v. Geotechnical Analysis.

vi. Rehabilitation Projects require structural framing plans and detail drawings independent of architectural drawings

i. As a minimum, include the following:

i. Foundation Plan:

Deep foundations:

1. Bearing strata located.
2. Number of piles or sizes for caissons defined.
3. Pile cap sizes determined.

Foundation system is fully defined including:

1. Wall and slab-on-grade thickness.
2. Brick shelf locations.
3. Slab-on-grade construction.
4. Footing steps and elevator pits.
5. Complete Footing schedule.

ii. Floor Framing Plans including first floor, typical, and roof framing plans with elevations, sizes and thickness, all columns and beams, column sizes and orientation, lateral bracing system with axial forces, end moments and reactions, column schedule, dimensions, weights and locations of all mechanical equipment.

iii. Sections showing size and connection of structural members, brick shelf locations and elevations, slab on grade construction, footing steps and elevator pit details etc.

iv. Typical Details for slab and spandrels, masonry reinforcing details for load bearing and non-load bearing walls and partitions, masonry seismic anchorage and lateral support requirements, bond beam locations, details and requirements.

v. Support of adjacent structures.

vi. Show method of fireproofing.

vii. All building expansion joints, slab-on-grade construction and contraction joints are shown in plan and detailed.

j. Structural Design Calculations
The Consultant shall submit a comprehensive set of structural design calculations, arranged in a logical sequence, with sheets properly numbered, labeled and indexed, clearly explaining all assumptions made and references to codes where applicable. Include any working drawings that may be required for proper documentation, showing detailed stress analysis of critical component parts of the foundations and the superstructure members. The set shall consist of the original design notes, or a suitable reproduction thereof, made by the structural engineer.

20. HVAC and Fire Protection Engineering Drawings

HVAC/Fire Protection drawings indicating the following:

a. Type, Capacities, and Zoning of all the HVAC, fire protection, and other special systems.

b. Location and Layout of Equipment of all major pieces of equipment and all equipment room layouts. Block equipment layout is acceptable.

c. Catalog cuts of major equipment to be used on the project.

d. Fire Protection/Sprinkler System major pipe routing and riser diagram. Fire pump selection and other ancillary equipment.

e. Preliminary air, water, and steam riser diagrams; preliminary flow diagrams for new systems and existing systems being modified.

f. Preliminary control diagrams for new BMS systems and for new and existing systems when interphasing with new BMS system.

g. Compliance with NYC Energy Conservation Code certificate based on the latest NYC Energy Conservation Construction Code

h. Diagrammatic single line plans for major ductwork and piping runs, with preliminary sizes indicated.

i. All Ductwork and Vertical Risers, shafts, stacks, and chimneys.

j. Calculations heating and cooling load calculations, summary of loads and a breakdown of individual peak space loads and ventilation loads, a summary of simultaneous peak loads for equipment selection, preliminary hydraulic, pump sizing, and water reserve calculations for sprinkler systems.

k. Design Temperatures and Percent Humidityto be maintained in each space.

l. Noise Control Evaluation for projects that incorporate new or replacement exterior mechanical/electrial equipment, as required to comply with Local Law 113 of 2005 (Noise Control Code).

21. Electrical Engineering Drawings

Electrical drawings indicate the following:

a. Electrical Service Room plan and elevation of service entrance equipment and other electrical equipment such as panel boards and fused switches

b. Site Plan location of electrical service room, telephone service, property lines, manholes, hand holes, duct banks for power, telephone, and cable television. Coordinate electric service room location and anticipated points of entry.

c. Floor Plans of lighting layouts of typical rooms and spaces; power distribution routing and; and locations of telephone service room, telephone closets, electrical closets, telephone equipment panels, motor control centers, and panel boards.

d. Single Line Plan and Riser Diagram of electrical service and power distribution.

e. Riser Diagram of fire alarm system.

f. Separate foot candle calculations for all rooms and spaces.

g. Motors and electric equipment locations.

h. Typical Power Wiring for lighting, wiring, and controls.

i. Pertinent Design calculations

j. Site Lighting and site electrical outlet systems, ISO foot-candle curves.

k. Calculations for lighting, power, and equipment summary

22. Plumbing Engineering Drawings

Plumbing drawings shall indicate the following:

a. Outside Services exiting or entering the building and storm water detention tanks.

b. Related Appurtenances such as catch basins, inlets, manholes and pipe routing.

c. Riser Diagrams for the various systems.

d. Location of all plumbing equipment including fixtures, tanks, sewage ejectors, sump pumps, interceptors, meters, backflow preventers, hose bibs, and hydrants. Include water booster pumps, hot water heaters, hot water circulation pumps, storm water storage tanks with all required pumps and filters and

e. Fuel dispenser and storage tank locations.

f. Various systems used, piping material and related equipment.

g. Roof and Site Drainage and all related penetrations, drains, water retention, and typical details.

h. Calculations

i. Coordination with other trades major equipment layout, sizes, weight, capacity and horsepower as necessary.

23. Hazardous Materials Survey Documents

DDC will provide to the Consultant, an environmental survey and report with the following information:

a. Accessible Hazards
A preliminary survey of the project site must note existing environmental conditions and properly define the limits of accessible suspect hazards that may be disturbed, altered, demolished, or affected by the proposed work. Such environmental hazards may include, but are not limited to, asbestos building materials, lead-containing paints, PCBs from electrical transformers, underground storage tanks, and similar conditions.

b. Inaccessible Hazards
Identification and location of any inaccessible suspect hazards and arranging for exploratory probes, physical penetrations, sample collection, and analytical tests to determine whether suspect hazards are present within the boundaries of the scope of work.

c. Assessment
A comprehensive environmental survey and hazard assessment will be provided by DDC, with a subsequent formal report, to determine the presence and location of hazardous materials and/or environmental conditions. The survey report will document the materials and conditions found and expected to be impacted by the scope of construction. The report shall, minimally, include the following information:

i. A brief discussion of the services provided.

ii. An inventory of environmental hazards including, but not limited to, asbestos, lead, soil contamination, PCBs, mold and biological hazards, and/or similar environmental concerns.

iii. A written assessment of all hazards including cost of abatement or remedial work.

iv. Drawings or sketches showing the approximate locations where samples were collected.

v. An estimate of the quantities and conditions of the hazards identified in the survey.

vi. A summary of all samples, analyses, chains of custody, and laboratory certifications.

vii. Diagrams, photographs, sketches, drawings, etc., as necessary to document the conditions.

24. Outline Specifications

Outline Specifications shall provide a written description of the materials and systems proposed for all disciplines within the scope of work, in narrative form, to further explain the design intent. The Outline Specification at the Design Development phase shall be an outline format that is a comprehensive materials and systems description. Submittal of a draft of the Final Technical Specifications is not the intent of the Outline Specification requirement. They shall be in a concise outline format. Specifications shall incorporate requirements for construction and demolition waste management and high recycled content and low toxicity materials. Commissioning specification shall be included where applicable.

Outline Specifications -shall be:

a. Coordinated with the drawings and cost estimate.

b. Follow the latest CSI Master Format divisions, sections numbers, and titles for each trade and material.

c. Organized by contract or trade with a Table of Contents - indicate each division and its related section number and title.

25. Identification of Proprietary Items

a. Under normal circumstances, proprietary items are not permitted. If no alternate items exist such that a proprietary item must be specified, the Consultant shall submit a statement to that effect. The Consultant shall be required to demonstrate the need for any such proprietary item and the lack of acceptable alternatives.

b. In conformance with the City's Procurement Policy Board Rules, the Consultant shall specify at least three manufacturers or fabricators for an item, followed by the words "or approved equal". The specifications shall also include a description of the key functional criteria for the item, in order to establish a standard by which a potential substitution can be evaluated. These requirements are designed to permit competition.

c. If it is not feasible to list three manufacturers or fabricators, DDC may, in rare circumstances give the Consultant approval to list fewer than three manufacturers or fabricators. Even if the Consultant obtains the necessary approval, the words "or approved equal" must be included, as well as a description of the key functional criteria for the item.

26. Catalogue Cuts of major or key manufactured products for all trades

27. Detailed Cost Estimate

The detailed cost estimate at the conclusion of Design Development conforms to standards described in section IV.C.5 and also includes:

a. List of Project Parameters

b. Reconciliation – of cost differences between Schematic Design and Design Development.

c. Break-Out and Itemize Project Elements
For each specification section, break out and itemize project elements in detail, by CSI code of titles and numbers as per the outline specification table of contents, for example:

CSI 04/22/00	Concrete Masonry Units – 4", 8", & 12" units and special shapes
CSI 05/10/00	Structural Steel Framing
CSI 26/05/19.13	Electrical Wiring – THHN #8, THHN #12

28. Energy Analysis

The Consultant shall prepare a preliminary energy analysis to show compliance with the New York City Energy Conservation Code. Applicabale systems include building envelope, lighting, mechanical, and electrical. Energy analysis shall follow DOB requirements.

In addition to NYCECC compliance, consultants working on LL86 projects shall provide an energy analysis report that reflects the energy conservation measures incorporated into the building design and follows the prescribed methodology to show estimated energy cost savings.

29. Design Review Comments Response

The Consultant is required to respond in writing to comments from the Architecture & Engineering and Technical Services review groups of DDC. Responses should be included for all comments, submitted within ten business days, and shall address the spirit of the comment as well as the specific issue. The A&E Project review form contains a column for the Consultant to respond to the individual comments. Consultant's responses will only be accepted on this form. The Consultant shall revise the documents to reflect the comments or explain in writing why a revision should not be done.

30. Comment Review Meeting

The Consultant shall attend a Comment Review Meeting to facilitate the communication of measures or actions taken to respond or resolve design issues and comments. The Consultant may present additional drawings, specifications, or data as required for clarification or resolution of outstanding design issues and comments.

V Construction Documents

A. CONSTRUCTION DOCUMENTS GOALS

During this phase the Consultant prepares final Construction Documents, including drawings and specifications, for regulatory approval and public bidding. Comprehensiveness and constructibility are critical to the Consultant's successful completion of this phase and DDC's acceptance of the bid documents for bidding and construction.

There are three deliverables in this phase: 50% CD, 100% CD, and the Compliance/Bid Documents. Although both the 50% CD and 100% CD phases have similar requirements, the level of development at each submission is different.

1. In most instances decisions related to materials and assemblies should be finalized in the 50% CD submission. Zoning, code, and design issues shall also be resolved at the 50% CD submission, either through compliance or determination by the regulating governmental agency. The 50% review period is not a stopping point in the development of the construction documents, it is expected that the Consultant will continue to further develop the documents while under review. The bid packaging process shall commence with the 50% CD submission.

2. The 100% CD submission should be a complete, coordinated, and checked set of construction documents fully communicating the Consultant's design intent.

3. The Compliance/Bid submission is a formal turnover of complete documents ready for bid. There is no review at this time.

4. A CSI format detailed Cost Estimate is required at each submission stage.

B. CONSTRUCTION DOCUMENTS PHASE PROCESS

Unless DDC determines otherwise, the DDC Constructibility Review Team shall perform constructibility review at the 50% CD and 100% CD phases for all projects. In conjunction, the A&E Design Review Team shall also perform design reviews to verify satisfaction of the project scope and confirm that outstanding design issues have been resolved. These comprehensive reviews will help the Consultant achieve a final set of construction documents, including technical specifications, that are clear, fully coordinated, and as complete and error free as possible in order to procure qualified bids. As part of these reviews, DDC may recommend changes in the construction documents that it considers necessary or desirable in order to procure proper bidding conforming to NYC and DDC procurement requirements and assure unfettered construction. The Consultant shall respond to the review comments in writing. The Consultant shall revise the documents to reflect the comments or explain in writing why a revision should not be done. Unless otherwise determined, a meeting is scheduled after each review stage in order to resolve open issues.

Upon the successful completion of the 100% CD Phase, the Consultant shall submit the final bid drawings to DDC for transfer to the ACCO Bid Unit. The requirements for the compliance submission and bid package are outlined in this chapter. The Constructibility Unit will verify the package is complete and incorporates the recommendations and directions given at the end of the 100% Construction Document phase.. This is only intended as a check for compliance with prior instructions; it is not a review phase.

1. Construction Documents Phase Kick-Off Meeting

This meeting of the Consultant, the Client Agency, DDC Project Manager, DDC Team Leader, Constructibility Unit, and other team members as required shall be held at the start of the phase. Project requirements shall be reviewed and reconfirmed as necessary, including:

a. Project Schedule
Review the updated project schedule

b. Project Decisions
Review all significant project decisions

c. Review Resolutions of the Previous Phases
Assure that all parties clearly understand the resolution of issues as indicated by the approved Design Development documents, so that Construction Documents may proceed.

2. Progress Meetings

The DDC Project Manager schedules progress meetings. The Consultant attends, and brings necessary materials to ensure a productive meeting. It is the intent that these meetings be active design work sessions with all stakeholders participating in the process. The meetings shall be recorded by the Consultant in meeting Minutes. Criteria for these minutes appear in Appendix A-3 under “Minutes”.

Attendees include the Consultant, Client Agency Representative, DDC Project Manager, A&E Design Review Team and the DDC Hazardous Materials Unit (BEGS) as necessary.

The Consultant shall prepare an agenda at least three days prior to each meeting. A list of typical topic subjects follows below.

The Consultant shall present the project through the use of drawings, renderings, material samples and cut sheets, estimates, and design calculations. All decisions will involve aesthetic, technical merit, and economic considerations. At the end of the 50% Construction Documents Phase all design decisions are made final. The remainder of the Construction Document Phase is to develop detailed and complete construction documents. There should be no substantive changes to the project scope or design during the 100% Construction Documents Phase.

Construction Document Phase discussions shall at a minimum involve the following topics:

a. Resolution of design and regulatory agency requirements

b. Identification of construction phasing, staging, or implementation criteria

c. Appropriateness of proposed structural and engineering systems

d. Efficiency of proposed design and systems

e. Validation of design data required for LEED certification

f. Material selection

g. Furniture selection

h. Hazardous material identification and removal

i. Cost Estimate

j. Proprietary Items

3. On-Board Reviews

For projects with accelerated delivery schedules, the DDC Project Manager may request that the Consultant and DDC Review Team participate in On-Board reviews. On-board review consists of a review of documents by DDC review staff in the presence of the

Consultant and all pertinent sub-consultants. Such reviews may take place at DDC or in the Consultant's office. The Consultant shall record all comments made by the reviewers as part of the meeting minutes, and submit said minutes for review.

4. Presentation and Acceptance

At the conclusion of the 50% CD phase, the Consultant shall make a presentation of the design to DDC and the Client Agency. Public presentations may also be required. The Consultant shall coordinate with the DDC Project Manager and Team Leader concerning all materials and information to be included in the presentation documents.

5. Design Review

The Consultant shall submit documents for Design and Constructibility Review to DDC and the Client Agency, who will issue written comments to the Consultant. The Consultant will in turn submit written responses to each comment. Responses should be submitted within two weeks, complete, and shall address the spirit of the comment as well as the specific issue. A meeting to discuss the comments will be conducted if the consultant responses are not acceptable. If so directed, the Consultant shall resubmit all or portions of the submission to the satisfaction of the reviewers.

6. Acceptance

Construction Documents shall not be considered approved and acceptable for bid until DDC has notified the Consultant in writing. Additional submissions of revised documents for review will be required until any and all outstanding issues are fully resolved in a manner acceptable to DDC. At the point of acceptance the documents are considered to be "in compliance" with DDC's requirements and ready for bid.

When so directed by the project manager, the Consultant will submit the Final Bid Drawings to the Constructibilty Unit who will deliver them to the ACCO Bid Unit.

7. BID PACKAGING

Preparation of bid packaging documentation & review to be by DDC. Consultant shall refer to Appendix A-3 for further information.

C. CONSTRUCTION DOCUMENTS PHASE TASKS (APPLICABLE TO BOTH 50% AND 100% CDS)

1. Construction Documents

a. Two Phases, normally consisting of 50% and 100% Construction Documents.

b. The drawings and specifications shall contain all pertinent information necessary to fulfill the stipulations of the Task Order or Project Objectives. They shall be prepared with construction details completely shown and dimensions given. Specifications shall be completely stated so as to enable prospective bidders to make accurate and reliable estimates of the quantities, quality, and character of the labor and materials required to complete the project and to install project equipment in a first class manner. Only items required for the project should be speciifed; generic specification sections are not acceptable.

c. Fixed-in-Place Equipment: The Construction Documents shall include all fixtures, equipment, and/or appliances to be provided as part of the bid.

d. Movable Equipment and Furniture: The Consultant shall plan for and provide adequate and proper space for all equipment and furniture to be provided by the City. The Consultant shall provide power, telecommunications, environmental, or other services required to support all such equipment.

e. As the Construction Documents proceed, the Consultant shall keep track of the

project construction cost, and advise DDC of any changes. If it appears that the construction cost limit may be exceeded, the Consultant shall review areas where economies can be achieved, and submit recommendations for approval to keep the construction costs within budget. The Consultant may be required to re-design, as directed by the DDC Project manager.

f. A detailed cost estimate (for each Contract) is required in the latest CSI format. Requirements are the same as for the Design Development Cost Estimate, except that the design contingency shall be reduced to 5% for the 50% CD estimate, and 0% for the 100% CD estimate. For multiple contracts, General Conditions and Overhead and Profit shall be applied individually to each contract. The Consultant shall inform the DDC Project Manager, in writing, of any adjustments to the last approved estimate of the total construction cost of the project. The Consultant shall modify the design to comply with budget limitations at no additional design fee.

2. Single or Multiple Contracts

Construction Documents shall be assembled as single or multiple contracts as determined by DDC. For multiple construction contracts the documents must be prepared as follows:

a. Separate Drawings and Specifications
If multiple contracts were determined as the method of construction procurement in the Design development Phase, the Consultant shall prepare separate drawing sets and specifications for each contract. See description of Multiple Construction Contracts in the Design Development Tasks section of this guide. Fast track, CM/Build, or CM/Manage projects may require the preparation of multiple separate bid packages.

b. Sprinkler System Work
Sprinkler system work is part of the HVAC/Fire Protection Contract but shall be shown and detailed on drawings separate from all other work within that contract.

c. Vertical Transportation Work
Vertical transportation work is part of the General Construction Contract but shall be shown and detailed on drawings separate from all other work within that contract.

d. Coordination of Multiple Contracts
The Consultants shall coordinate each separate contract so as to clearly communicate the work of related trades, and preclude changes, adjustments, or extra work orders during construction.

3. Hazardous Materials Construction Documents

If required the Consultant shall incorporate hazardous materials construction documents supplied by DDC BEGS, fully coordinated across all disciplines, including plans and specifications, procedures and protocols, phasing plans, regulatory filings, and a cost estimate.

For projects involving the removal, handling, and disposal of hazardous materials, when DDC's BEGS team is not handling hazmat, the Consultant shall prepare documents that include:

a. Environmental Specifications
Provide plans, drawings, and written design specifications to perform any remedial/abatement work and provide for temporary re-insulation, weather protection, prevention of soil erosion, spill prevention, etc., that may be indicated. These documents must be in a format suitable for bidding and included with the final bid documents prepared by the Consultant for the overall project.

b. Standard Operating Procedures
The Consultant shall provide within the specification the following procedures and protocols in compliance with NYC DEP and NYS Department of Labor standards, as necessary for the scope of the environmental work:

i. Special experience requirements for environmental abatement/remediation

ii. Emergency precautions and notifications

iii. Quality assurance standards

iv. Air-monitoring and/or bulk sampling requirements

v. Removal/ remediation procedures

vi. Decontamination procedures

vii. Critical barriers and engineering controls

viii. Waste handling and disposal

ix. Reinstallation or replacement with non-hazardous materials

x. Identification of products
The Consultant shall identify any and all products necessary for completion of the hazardous materials abatement, with performance specifications for those products, including, but not limited to, material handling devices, replace materials, specialized tools and equipment, cleaning materials, worker protection (respiratory protection and protective clothing), waste disposal materials, decontamination facilities, barriers, and air moving equipment.

c. Hazardous Materials Cost Estimate
The Consultant will be required to submit detailed cost estimates, construction phasing plans, CPM charts and regulatory filings. These filings, variances, work plans, and notifications may include the NYC DEP and DOB, NYS DOL and DEC, and any federal EPA, OSHA, or DOT that may be required due to the nature of the hazards within the project scope.

4. Coordination

a. It shall be the responsibility of the Consultant to coordinate the work of all sub-consultants, trades, and or disciplines so that interference is avoided. All sub-consultants shall be responsible to coordinate their work with that of all other sub-consultants, trades, or disciplines.

b. The consultant and sub-consultants shall prepare composite sections, drawn to scale, showing the work of all trades in equipment rooms, corridors, plenum areas, and all other areas involving the work of more than one trade. These sections shall indicate means of equipment placement. Composite drawings shall be included as part of the Contract Documents for each trade in addition to the regular drawings with their own details and sections. Responsibilities for the work of each trade and in each contract shall be clearly labeled to avoid confusion during bid and construction.

c. Any interference between trades caused by inadequate design or coordination of the Contract Documents is the responsibility of the Consultant. The Consultant will be required to prepare, at no extra cost to the City, addenda or supplemental drawings necessary to resolve any conflict found prior to or during the bid period or during construction. The means for resolving the conflict(s) shall be approved by DDC Project Manager.

5. Regulatory Approvals

The Consultant shall file and prepare applications to DOB and other applicable governing agencies during the construction documents phase. Provide copies of all submitted regulatory agency applications. A complete set of construction documents shall be submitted at the 100% Construction Documents submission to DDC bearing the stamps of approval and be accompanied by all necessary applications, certificates, or permits of all utilities and NYC, NYS, and Federal Agencies having jurisdiction over any phase of the work, not limited to DOB. Where approvals have been received and changes were subsequently made prior to bid affecting the work covered by the approvals, the Consultant shall resubmit and receive approval for the revised work.

a. Landmarks Preservation Commission Approval
The Consultant shall work with the DDC Office of Historic Preservation to obtain approval from the LPC when the construction documents are 75% complete.

b. Public Design Commission Approval
The Consultant shall work with the DDC Public Design Commission Liaison to obtain Final Approval from the PDC when the construction documents are 90% complete.

6. Bid Packaging

a. Preparation of bid packaging will be conducted and submitted along with the construction documents and specifications in the 100% phase.

b. Non-proprietary Items
Specifications shall list a minimum of three manufacturers, and include "or approved equal" for each item specified. The Consultant shall write performance specifications describing the salient characteristics of the product for each item specified.

c. Special Experience Requirements
Quality assurance requirements exceeding three years and three projects are considered special experience. The Consultant shall inform the DDC Project Manager of all areas where special experience requirements are advisable for the project. Special experience requirements for performance need to be approved by DDC prior to the compliance/bid documents submission.

7. Sustainable Design

The Consultant shall include building details and specifications that ensure project performance requirements and sustainable design goals are met. For LEED projects, the Consultant shall also prepare documentation for the design credit submission.

8. Commissioning

The Consultant shall coordinate with the commissioning agent, update commissioning documentation as necessary, and incorporate commissioning specifications into the construction documents. The commissioning agent shall also prepare the draft commissioning plan to be reviewed by the Consultant.

9. Proprietary Items and Systems

Per NYC procurement policy board rules, contract documents shall contain no proprietary systems or products without written approval from DDC. When written approval is issued the selected manufacturer shall issue an affidavit, stating the unit price cost of the single-source item, and the period of time that the unit price will hold. The affidavit shall be included in the specifications at the discretion of the DDC Project Manager. All submissions and justifications are to be prepared by the requesting entity. The use of proprietary items is strongly discouraged and will only be considered for approval by DDC if the item warrants necessity.

10. Shop Drawing and Material Samples Schedule

The Consultant shall prepare a log of all shop drawings for each trade pertinent to the project. In addition the shop drawing log shall list all required samples, mock-ups, data sheets and catalogue cuts. The log shall be incorporated into the Consultant's Addendum to the General Conditions. Identifying information shall include specification reference number and listing of appropriate discipline.

11. Percent for Art

a. Artwork Preliminary Design
Within a reasonable amount of time after the PDC approval of the Artist's conceptual design, the Artist shall prepare and submit to the Consultant a detailed preliminary design for the Artwork. The preliminary design submission specifies

the materials, dimensions, weight, finish, and proposed site preparation requirements and proposed installation method, and any additional modifications to the site necessary to prepare it for the artwork.

To assist the Artist in preparing the preliminary design following approval of the conceptual design, the Consultant shall furnish to or obtain for the artist all drawings, material samples, and similar documentation necessary to enable te Artist to prepare the Preliminary Design in compliance with any applicable Legal Requirements.

b. Public Design Commission - Artwork Preliminary Design Review
DDC shall submit the CRG approved preliminary design to the PDC for review. During the period in which the PDC is considering the CRG approved preliminary design, the Artist and the Consultant shall be available to meet with the design and sponsor agency, the Percent for Art Program, and the PDC to discuss the CRG approved preliminary design.

c. Artwork Site Preparation
The City is responsible for coordinating the design of the selected site with the artwork, and engineering and detailing all resources to support the artwork; accommodating electrical, structural, landscaping, lighting, footings, plumbing, and any other loads imposed by the artwork, provided, however, that all such work shall have been fully outlined and approved in advance by the City as part of the approved design.

d. Construction Documents
The 50% CD's shall indicate the location of the artwork. The Consultant shall work with the Artist to detail the drawings and specification as they relate to preparing the site for the artwork. The Artist will be responsible for any special research of materials that is required for the artwork portion of the Construction Documents.

12. Furniture Specification Book

When directed by the Project Manager or the Task Order or Project Objectives, the Consultant is required to provide a furniture specification book, which will be separated into three categories: "Requirement Contracts Furniture", "Items for Public Bidding", and "Inventoried Furniture and Equipment to be Re-used". The specifications book will contain furniture catalogue cuts, specifications, literature, and photographs for all items in each category.

D. 50% CONSTRUCTION DOCUMENT DELIVERABLES

1. Regulatory Approvals

All correspondence, applications, objections, approvals, findings, test results, etc. received to date shall be submitted with the documents for review. The Consultant shall submit a status report on all required submittals to the DDC Project Manager showing actual submittal dates, approvals received, and any unresolved issues including any objections issued by the regulatory agency.

2. General

All drawing submissions, including the work of all required disciplines, shall represent a minimum of 50% completion of the final construction documents set and shall meet the following requirements:

a. Architectural and Engineering Drawings
Drawings shall use appropriate drafting scales and include symbols, legends, dimensions, drafting conventions and abbreviations (see design criteria Appendix A-1 and the AIA website) following industry standards. For multiple contract construction projects the documents shall clearly indicate separation of contract work among the various contracts.

b. Use the same names, room numbers, gridlines and column designations throughout the construction drawings for all disciplines and specialties.

c. Standard Title Sheet and Title Block are available on DDC web site for download.

d. Drawing and Specification Submission Requirements
Six copies, full or half-size drawings as directed by DDC of all submittal materials for the design are required for Design and Constructibility Reviews. An additional three copies are required for the DDC Project Manager and Client Agency unless otherwise noted in the Task Order or Project Objectives. Full size drawings shall be 24"x36" unless otherwise approved by DDC.

e. All Special Inspections and Progress Inspections shall be identified on the title sheet or sheets for all trades

f. The design shall meet the latest code provisions for resisting earthquakes. Specify or show details for anchoring and supporting equipment.

g. Commissioning Specification
For HVAC, Plumbing, and Electrical systems for projects to be commissioned.

h. COMcheck energy analysis and calculations updated as warranted from prior submissions.

i. NYCECC energy analysis and supporting documentation per DOB requirements for all applicable work.

3. Technical Specifications shall be developed to a 50% level of completion for every involved project discipline.

a. Technical Specifications shall follow the latest CSI division and section structure, and shall meet, at minimum, the construction technology standards in the latest version of the CSI Manual of Practice.

b. Technical Specifications shall be prepared and coordinated with drawings in accordance with the Building Design and Construction sections of the latest AIA Handbook of Professional Practice.

c. All specified items require proper identification of "or equal" requirements including at least three product and manufacturer alternatives. Refer to item 9 of Construction Document Services for direction of proprietary items and systems. All Special Experience Requirements shall be coordinated with the DDC Project Manager for approval. Warranty Periods indicated in the Technical Specifications must exactly correspond to the data entered into the Addendum to the General Conditions.

d. At 50% Construction Documents, the Consultant shall proofread and coordinate the entire specifications with all trades prior to submission for review. All specifications shall be edited for project specific scope of work. Generic specification is not acceptable. The use of proper reference to NYCDDC, and elimination of any and all references to "the Authority", "the Corporation", "the Client", "the Architect", "the State", and other incorrect nomenclature is required.

e. For projects to be commisioned, the Consultant shall review and incorporate commisioning specifications provided by the commissioning agent.

4. Architectural Documents

The Architectural Documents, including Interior Design, shall include but not be limited to:

a. General Notes Sheet include General Conditions and DOB notes, Project scope, zoning, code analysis, including occupancy and construction classification data and egress plans as applicable.

b. Phasing/Staging Plan as applicable

c. Site Survey as provided by DDC to be incorporated in the Consultant's documents.

d. Demolition and selective removals plans showing all required removals, extents, limits, and protection.

e. Floor Plans

f. Building sections and exterior and interior elevations as applicable, with materials shown

g. Detailed Wall Sections and Details
Detailed wall sections shall indicate all wall assemblies, building conditions, insulation materials, ratings, assemblies, characteristics complete in all details. With all Fire Ratings – of walls, partitions, ceilings, shafts, roofs, and structural elements such as columns and slabs

h. Reflected Ceiling Plans showing all light fixtures, air supply diffusers and return grilles, sprinkler heads, smoke detectors

i. Door, Window, and Finish Schedules

j. Vertical Transportation Plans layouts, details, and sections as applicable

k. Furniture Layouts

5. Sustainable Design Documents

a. In addition to NYC building code reqirements, the Consultant on LL86 projects shall update the energy analysis report to reflect final design.

b. The Consultant shall specifiy performance criteria such as high efficiency, low VOC, and high recycled content wherever feasible. Specifications for LEED projects shall include documentation and tracking requirements in relevant specifications as well as targeted criteria such as recycled content percentage and VOC limits. Specifications shall also include a LEED scorecard that outlines which credits are being pursued.

c. The Consultant shall update the LEED plan and begin compiling documentation for design credit submission.

d. All targeted LEED credits and/or reductions in energy consumption and potable water consumption should be fully validated by the contract documents and calculations.

6. Vertical Transportation Documents

For project involving vertical transportation, the documents shall include but not be limited to:

a. Floor Plans
Of all equipment such as controllers, main disconnect switches, motor generator sets, inter-communication equipment, ventilation, and air-conditioning equipment.

b. Riser Diagrams
Indicating elevator installation, floors covered, all stop distances, total travel distance, buffer, and door openings.

c. Car Details
Provide details for internal finishes, construction of car, emergency exits, lighting including emergency lighting, handrail, exhaust fan, flooring, and all accessory equipment.

d. Detail Drawings of hall buttons, lanterns, and car operating panel.

e. Emergency Recall

f. Calculations for shaft, footing, and structural calculations.

g. Sections and Details for elevator shaft, elevator door head sill and jambs, etc.

7. Landscape Architecture Documents

Landscape Architecture Documents shall include but not be limited to:

a. Site Plan with major grade elevations, land contours, materials, and dimensioned locations of primary site features.

b. Builder's Pavement Plan

c. Planting Plan

d. Protection and Removals Plans

e. Site Materials Plan

f. Details of key site design elements

g. Site demolition and removals plan

h. Elevations of adjoining buildings and foundations

i. Site Grading shall Indicate existing and new grade elevations and land contours, at appropriate intervals, adjacent to the building and around the site. Elevations shall be given in feet with decimals to the nearest 1/100th. Provide storm drainage plan.

j. Site Lighting and site electrical plan

k. Site Irrigation Plan

l. Civil Engineering as applicable

8. Structural Documents

The Structural Documents shall include but not be limited to:

a. Foundation , Floor, and Roof Framing Plans

b. Demolition or Removal Plans

c. Structural Sections, Details, and Elevations

d. Type and Strength of all structural materials.

e. Design Soil Bearing Value and pile type and capacity.

f. Sizes, Locations, and Details of Major Structural Elements and their connections, including equipment supports and site structures, base plates and anchor bolts, camber, shear stud types and lengths

g. Bottom Elevations of all Footings estimated pile lengths and underpinning requirements.

h. Location and Details of all Construction Joints, control and expansion joints.

i. Substructure waterproofing details to show extent of waterproofing and waterstop systems.

j. Provide a plan clearly indicating and dimensioning all construction, control and contraction joints.

k. Design Live Load and column load schedule.

l. Required Construction Procedures

m. Special Shoring or Bracing Requirements

n. Seismic Design

o. Structural calculations of all elements.

p. Soil Boring Plan and Soils Analysis, DDC provided and incorporated into drawing set.

q. Boring logs provided by DDC

9. HVAC and Fire Protection Documents

The HVAC/Fire Protection documents shall include but not be limited to:

a. Plans
The major components of all systems including room-by-room duct distribution, diffuser and register locations, and branch sprinkler piping and head locations. Fully describe existing systems and or integration of existing or new system

b. Demolition or Removal Plans
Indicate all existing systems to be demolished, as applicable.

c. Equipment Schedules
The Consultant shall submit equipment schedules with basic equipment design parameters completed so as to indicate type, capacity, and zoning of systems. All HVAC/Fire Protection and other special systems shall be indicated.

d. Flow Diagrams for Fluid Systems
Provide complete schematic flow diagrams for all systems, both new and existing to be modified. These include steam, chilled water, condenser water, hot water, fire protection, and fuel oil, showing all necessary equipment and valves.

e. Flow Diagram for Air Systems
For all air handling, air-conditioning, and exhaust systems. The consultant shall indicate all automatic controls, dampers, temperature sensors, control valves, return/relief air routing, and maximum and minimum air quantities for supply, return, and relief air. Provide control system legend.

f. Fire protection Plans
Indicating piping and Fire standpipe and sprinkler head layout with design criteria.

g. Riser Diagrams
Provide riser diagrams including air, water, and steam risers for all new systems and all existing systems to be modified.

h. Detailed Sequence of Operations and Control systems
Specifications and schedules shall include a specific operating and control sequence, and required interlocking for each system.

i. Mechanical Room Layouts
Indicate all equipment, ductwork, duct shaft layouts and pipe routing. Scale for mechanical equipment room plan to be 3/8" = 1'-0" or larger. Duct work to be shown in double line drawing. Provide installation details of each typical equipment used on the project.

j. Ductwork and Piping
All ductwork and piping 3" diameter and larger located in mechanical equipment rooms are to be indicated to scale with double line drawings. Minimum duct size shall be 6" high.

k. Sections
If the mechanical equipment room contains multiple pieces of equipment provide at least two sections to show the elevations of all equipment, piping, ductwork, and

structural supports. Scale for Sections to be 1/4" = 1'-0" or larger. Duct work to be shown in double line drawing.

l. MER (Mechanical Equipment Room) Composite Sections
For equipment rooms, congested corridors, and all areas involving the work of more than one trade, provide composite sections showing all new and existing equipment and conditions.

m. MER Additional Sections
Where mechanical equipment units, ductwork and piping are located in tight space, sufficient sections shall be developed to show elevations of all equipment, piping, ductwork and structural support. All sections to be 1/4" = 1'-0" or larger

n. Required Access Space for Mechanical Equipment
The Consultant shall clearly indicate the manufacturer's required access space or tube-pull space for all mechanical equipment. All equipment components shall have sufficient space for maintenance, repair, and replacement of fans, coils, electric motors, filters, pumps, dampers, valves, and controls.

o. Coordination
Coordinate with all disciplines to avoid conflict and inappropriate interferences with other trades. Coordinate with electrical power requirement for HVAC equipment, requirements and location of duct smoke detectors, fire and smoke dampers, fire alarm and fan shut down.

p. Identification
All air-handling units shall clearly identify all coil sections, filters, access locations, and the mixing plenum. The location and weight of all equipment shall be indicated. Indicate openings, penetrations, and support.

q. Design Calculations
All Final Calculations including ComCheck, Energy Code, Sound Level Calculations and compliance with all applicable codes.

10. Electrical Documents

The Electrical documents shall include but not be limited to:

a. Plans
All projects shall have separate electrical plans for demolition, lighting, power, and low voltage (including fire alarm, telecommunications, and data systems). Floor plans shall show detailed layout of major conduit runs to eliminate conflicts and interference with other trades.

b. Service Entrance Equipment
Scale plans and elevations of all service entrance equipment and panel boards within the electric service room. Submit detailed load summary.

c. Home Runs
All home runs shall be shown and properly indexed as to number and size of conduit, wires and destination.

d. Riser Diagram and/or Single Line Diagrams
Provide riser and single line diagrams for electric service and power distribution, fire alarm, telephone, intercom, data, security systems, and other systems shown on the drawings. Single line power riser diagram shall include electric service, main distribution panel, and all downstream panelboards, major mechanical equipment, emergency panels, and transformers

e. Control Wiring Diagram where necessary.

f. Detailed Panel Schedules
Details shall include circuit destination load in volt- amperes, overcurrent setting, load summary, connected, spare, and demand load.

g. Short Circuit Calculations and voltage drop calculations for all affected points in the distribution system. Indicate AIC ratings of incoming service, panelboards and overcurrent protective devices. Indicate short circuit values on appropriate points of the single line diagram.

h. Protective Device Coordination Study
Submit Protective Device Coordination Study indicating selective coordination between the service switch or circuit breaker and the distribution switches and/or the switchboards, and downstream of the switchboard

i. Arc Flash Study

j. Load Calculations

k. Lighting Calculations

l. Locations of Devices
Receptacle layouts of typical rooms and spaces; low voltage systems device layout of typical rooms and spaces, devices, light fixtures, panels, motors, and electrical equipment and panel boards drawn to scale in the electric service room.

m. Lighting Fixture Details with details of construction and mounting supports.

n. Emergency Load Calculations

o. Emergency Power and Lighting

p. Motor and Equipment Schedule
Complete the motor and equipment schedule in the General Conditions.

q. Utility Company Load Letters (Electric, Telephone, CATV, etc.)

11. Plumbing Documents

The Plumbing documents shall include but not be limited to:

a. Connections
Location of storm and sanitary sewers, connection to existing sewers, pertinent inverts, size and location of water services, domestic and fire, and the location of gas service, integrated with existing systems, indicated on the site plan and coordinated with floor plans.

b. Plans
Location and size of all roof drains, standard or interior piping for storm, sanitary, cold water, hot water, circulating, gas, fire standpipe, or removed systems or elements indicated on separate plans.

c. Grade Elevations
Provide grade elevation of catch basins, manholes, and drains.

d. Size and Capacity
Indicated for all oil separators, hot water storage tanks, sump pumps, sewage ejectors, and house pumps circulating pumps, storm water detention tanks, suction tank and storm water tanks.

e. Riser Diagrams for all systems

f. Calculations for flow, pressure, fixture counts.

g. Gasoline and Diesel Systems
Complete information, including details and notes.

h. Utility companies - letters to respective utility company load letters, SD1 and SD2, hydrant flow test results and any approval and/or utility room approved layouts.

i. Plumbing information - shall be coordinated with electrical, structural, HVAC, architect and all other trades.

12. Furniture and Equipment

For projects involving Furniture and Equipment as part of the scope of work, the documents shall include but not be limited to the following list. Unless explicitly stated otherwise in the Task Order or Project Objectives, all furniture tasks other than generic furniture layouts are a supplemental service.

a. The Consultant shall provide complete furniture plans which shall be dimensioned, labeled, and keyed. Include all space system furniture, loose furniture, and built-in furniture and equipment. Illustrate points of entry for electrical outlets, telephone jacks, and computer locations at all furniture systems. Indicate all power and data outlets.

b. Drawings for loose furniture and systems furniture shall indicate clearance or installation dimensions and room numbers and shall contain a furniture legend and keys to identify all items shown.

c. Vendor Requirements
System furniture plans must meet vendor requirements as to format, key, and installation guidelines.

d. Systems Furniture
Installation plans as required by the vendor consist of the complete set of component, panel, and electrical drawings.

e. Furniture Specification Book
The Consultant shall provide a complete furniture specifications book, with keys to cross reference individual items with the plans, prepared in three sections; Requirement Contract, Purchase Items, and Bid Items.

f. Color and Sample Board
The Consultant shall provide a complete set of color boards of the furniture design, showing furniture finishes and fabric selections complete with labeling and room locations. Boards shall be presented in conjunction with the building materials board.

g. Cost Estimate
The Consultant shall provide an updated final furniture and equipment budget, including required contingencies.

h. Loose Furniture
The Consultant shall provide installation plans for loose furniture and equipment and space system furniture. Space system furniture plans shall meet vendor requirements, which generally include fully dimensioned and labeled panel layouts, component layouts, and electrical layouts, including wall and floor entries and telephones and computer locations.

13. Hazardous Materials Bid Documents

Unless otherwise determined by DDC, all Hazmat removal design work required will be performed through DDC BEGS and given to the Consultant. The Consultant shall be responsible to review and coordinate the hazmat survey abatement scope with the project work scope and identify related or affected project scope items. The Consultant shall receive the hazmat removal documents from DDC and incorporate the documents within the construction documents. All work incidental to Hazmat removals shall be documented in the contract documents.

For projects involving the removal, handling, and disposal of hazardous materials, when DDC's BEGS team is not handling hazmat, the Consultant shall prepare documents that include:

a. Environmental Specifications
Provide plans, drawings, and written design specifications

b. Standard Operating Procedures
The Consultant shall provide within the specification the procedures and protocols in compliance with NYC DEP and NYS Department of Labor standards, as necessary for the scope of the environmental work:

c. Identification of Products
The Consultant shall identify any and all products necessary for completion of the hazardous materials abatement.

d. Hazardous Materials Cost Estimate
The Consultant will be required to submit detailed cost estimates, construction phasing plans, CPM charts and regulatory filings.

14. Bid Packaging

a. Format
The Cost Estimate format (see Cost Estimate form at www.nyc.gov/buildnyc) shall meet all DDC requirements. The Cost Estimate for all Contracts shall be in the same CSI format as the Design Development Cost estimate with the exception that design contingency is reduced to 5% at 50% CD and need no longer be included at 100% CD. The estimate shall be done with a DDC approved computerized estimating program compatible with EXCEL.

b. Reconciliation
The cost estimate shall be reconciled with all specifications. It shall include every section number and title from the project specifications in numerical order using the DDC approved spread sheet format.

c. Addendum to General Conditions
The Consultant shall edit and insert project specific information in the DDC "Addendum to General Conditions". The Addendum to the General Conditions shall be coordinated with the General Conditions. Please refer to Appendix A-3 for further instruction

15. Review Comments Response

The Consultant is required to respond in writing to Design and Constructibility comments received from the technical review groups of DDC and/or the CM performing the Constructibility Review as well as from the Commissioning Agent when an agent is used. Response should be no more than two weeks from receipt of comments, and should address the spirit of the comments as well as the specific issues. Timely compliance with 50% Construction Document Design and Constructibility review comments is expected.

E. 100% CONSTRUCTION DOCUMENTS DELIVERABLES

1. Regulatory Approvals

At this stage of the project all submissions to DOB and other regulatory agencies and utility companies should be completed. All correspondence, approvals, findings, test results shall be submitted with the documents for review and record. The Consultant shall submit a final status report on all required submittals to the DDC Project Manager showing actual submittal dates, approvals received, and any unresolved issues including any objections issued by the regulatory agency.

2. General

All drawing submissions, including all required disciplines, shall show a minimum of one hundred (100%) percent completion and shall meet the following requirements:

a. Commissioning Specification
HVAC, Plumbing, and Electrical system specifications shall be provided for projects to be commissioned.

b. Final NYCECC energy analysis, COMcheck, and Calculations

c. Bar Graph Construction Schedule

Indicate all phasing and Client Agency requirements.

d. Long Lead Time Items
The Consultant shall prepare a separate list of all items that require early procurement. These long lead time items, which may significantly impact project duration and coordination, shall have previously been discussed during project design. Long lead time items shall also be highlighted on the Shop Drawing Log Form.

e. Shop Drawing Log Form
The Consultant shall submit the list of required shop drawings, samples and catalogue cuts that have been previously prepared and incorporated into the Specifications on the Shop Drawing Log form. The Shop Drawing Log in the approved format shall be presented to the project Contractors at the Construction Kick-off (Pre-Construction) Meeting.

3. Technical Specifications

Technical Secifications shall be developed as noted in the 50% CD phase to a 100% level of completion for every involved project discipline. The specifications shall reflect any changes, revisions, clarifications, or additional information as a result of DDC Design and Constructibility review comments and recommendations, and all regulatory agency approvals.

4. Construction Documents

The Construction Documents as outlined in 50% Construction Documents Deliverables shall be completed to 100%. Documents shall reflect any changes, revisions, clarifications, or additional information and or details as a result of DDC Design and Constructibility review comments and recommendations, and all regulatory agency approvals.

5. Sustainable Design Documents

a. Energy Analysis - The Consultant shall update the energy analysis report as necessary for LL86 projects to reflect final design.

b. Specifications - For LEED projects, the Consultant shall highlight LEED submittal requirements for applicable materials on the Shop Drawing Log form.

c. LEED Documentation - The Consultant shall begin design credit submission after final design is complete.

6. Commissioning

The Consultant shall respon to comments prepared by the commissioning agent on the 100% CD submission.

7. Hazardous Materials Bid Documents

For projects involving the removal, handling, and disposal of hazardous materials, when DDC's BEGS team is not handling hazmat, the Consultant shall prepare documents that include:

The consultant shall be responsible to review and coordinate abatement scope with the project work scope and identify related or affected project scope items. All work incidental to Hazmat removals shall be documented in the contract documents.

a. Environmental Specifications
Provide plans, drawings, and written design specifications to perform any remedial/

abatement work and provide for temporary re-insulation, weather protection, prevention of soil erosion, spill prevention, etc., that may be indicated. These documents must be in a format suitable for bidding and included with the final bid documents prepared by the Consultant for the overall project.

b. Standard Operating Procedures
The Consultant shall provide within the specification the following procedures and protocols in compliance with NYC DEP and NYS Department of Labor standards, as necessary for the scope of the environmental work:

- **i.** Special experience requirements for environmental abatement/remediation
- **ii.** Emergency precautions and notifications
- **iii.** Quality assurance standards
- **iv.** Air-monitoring and/or bulk sampling requirements
- **v.** Removal/ remediation procedures
- **vi.** Decontamination procedures
- **vii.** Critical barriers and engineering controls
- **viii.** Waste handling and disposal
- **ix.** Reinstallation or replacement with non-hazardous materials
- **x.** Identification of products
  The Consultant shall identify any and all products necessary for completion of the hazardous materials abatement, with performance specifications for those products, including, but not limited to, material handling devices, replace materials, specialized tools and equipment, cleaning materials, worker protection (respiratory protection and protective clothing), waste disposal materials, decontamination facilities, barriers, and air moving equipment.

c. Hazardous Materials Cost Estimate
The Consultant will be required to submit detailed cost estimates, construction phasing plans, CPM charts and regulatory filings. These filings, variances, work plans, and notifications may include the NYC DEP and DOB, NYS DOL and DEC, and any federal EPA, OSHA, or DOT that may be required due to the nature of the hazards within the project scope.

8. Final Cost Estimate

a. The Cost estimate (see Cost Estimate form at www.nyc.gov/buildnyc) shall meet all DDC requirements.

b. At this time the design contingency is no longer to be part of the estimate. The Cost Estimate for all Contracts shall be in the same CSI format as earlier estimates with the exception that design contingency need no longer be included.

c. The cost estimate shall be reconciled with all specifications. It shall include every specification number and title from the project specifications in numerical order.

9. Addendum to General Conditions

The Consultant shall insert project specific information in the DDC "Addendum to General Conditions". At 100% CD deliverables, a revised "Addendum to the General Conditions conforming to 50% CD constructibility review comments shall be submitted in an electronic format. Please refer to Appendix A-3 for further instruction.

10. Review Comments Response

The Consultant is required to respond in writing to Design and Constructibility comments received from the technical review groups of DDC and/or the CM performing the Constructibility Review as well as from the Commissioning Agent when an agent is used. Response should be no more than two weeks from receipt of comments, and should address the spirit of the comments as well as the specific issues. Timely compliance with

100% Construction Document Constructibility review comments will accelerate the start of the bid process and construction.

F. COMPLIANCE SUBMISSION/ BID DOCUMENT DELIVERABLES

1. Summary of Deliverables

After approval of the Construction Document drawings, Technical Specifications, and the Addendum to the General Conditions, the Consultant shall deliver the following to DDC's Constructibility Unit. Submit electronic copies of drawings, specs, and estimate in DDC approved format for permanent DDC records with the bid document submissions.

a. Construction Documents

b. Drawing Format
Full size drawings shall be on reproducible media as directed by the Project Manager. They shall conform to the approved deliverables identified in the 100% Construction Documents.

c. Conformity with Comments
Drawings shall fully conform to 100% construction document review comments by DDC.

d. Stamp
Drawings shall bear the required seal and signature of the Consultant and all applicable sub-consultants.

e. Approvals
Submit original of all drawings or documents bearing stamps of approval by each regulatory agency, including but not limited to DOB.

f. Signatures
Include identification, professional seals and signatures of the Consultant and any sub-consultants on all drawings so as to meet the requirements of Article 27-157 of the New York City Administrative Code.

g. Specifications
Shall be in clear legible form, typed doubled sided, and collated per DDC format, on 8 ½"x11" white bond paper, unbound without punched holes, collated, boxed for bid packaging and photocopying.

h. Estimate
Electronic file of final cost estimate in DDC approved format shall be submitted.

2. Bid Packaging

a. The Consultant shall prepare the Addendum to the General Conditions. The requirements for Single Contract Specifications are the same as those for Multiple Contracts except that the list for separate contracts is not included. Items to be inserted by the Consultant include but are not limited to the following:

- **i.** Project Description
- **ii.** Contracts for the Project
- **iii.** Applicability of Articles, Amended Articles, and Additional Articles
- **iv.** Schedule "A"- Shall indicate Contract Duration, Liquidated Damages, and Insurance, including coverage on Asbestos and Insured Parties
- **v.** Schedule "B"- Listing all Warranties corresponding to those in the Technical Specifications

vi. Schedule “C”- Complete list of Contract Drawings

vii. Schedule “D”- Indicating Electrical Motor Control Equipment

viii. Schedule “E”- Indicating Separation of Trades

ix. Schedule “F”- Shop Drawings and Materials Samples Schedule

x. Refer to Appendix A-3 for further information.

b. Contractors Bid Break-down Form
DDC shall prepare the contractor bid break-down form directly from the consultant final cost estimate.

c. Unit Price Allowance Schedule
Unit price allowance schedule shall be included if applicable.

VI BID, Award, and Registration

A. BID, AWARD, AND REGISTRATION SERVICES

During the period of advertising, receipt and analysis of bids, the Consultant shall:

1. Interpret Plans and Specifications

Interpret plans and specifications when requested by the DDC in response to inquiries by prospective bidders.

2. Prepare and Issue Amendments and Drawings

Prepare and issue all necessary addenda, amendments and drawings required for the clarification of plans and specifications. Such documents shall be issued through DDC.

3. Attend Pre-Bid Meetings

Attend Pre-Bid Meetings to answer questions from bidders and to assure that all parties clearly understand the intent of the Contract Documents. A pre-bid meetings is required with the Consultant, the Client Agency representative and the DDC project team. Pre-bid meetings are held at the site to ensure that all bidders become familiar with existing conditions. Agenda items include highlights of the contract emphasizing any unusual work. If any of the questions posed by the Contractors requires a change to the Contract Documents, the Consultant is responsible for the preparation and issuance of an Addendum.

4. Assist in the Analysis and Evaluation of Bids

Assist in the analysis and evaluation of bids and within three days of the bid opening make written recommendations and reports on the disposition of bids and the award of Contracts. Assist in the Review and Evaluation of Special Experience Qualifications. Assist in the review and evaluation of special experience qualifications of the subcontractors proposed by the Prime Contractors.

5. Attend Pre-Award Meetings

Attend Pre-Award Meetings to answer questions and to provide additional support and analysis in the understanding of the intent of the Contract Documents. A pre-award meeting for all prime contracts are required with the Consultant, the contractor, the Client Agency representative and members of the DDC project team. DDC holds a Pre-Award Meeting for the low bid contractors.

B. BID, AWARD, AND REGISTRATION DELIVERABLES

During the period of bid advertisement and analysis, the Consultant shall prepare as necessary, the following:

1. Addenda

Addenda drawing and specifications shall be produced by the Consultant as required by Contractor questions and requests for information arising during the Pre-Bid Meeting or as otherwise necessary for the clarification of the Bid Set of Contract Documents. The Consultant shall submit all addenda, including drawings and specifications, to the DDC Project Manager. The DDC Project Manager will inform the consultant of all format requirements, including the specific addendum number.

2. Filing and Signature

The Consultant, or appropriate sub-consultants, shall sign and seal all necessary drawings. Drawings which need to be filed with, or presented to, regulatory agencies, including, but not limited to, the NYC DOB, shall be prepared and filed by the Consultant. The Consultant shall send regulatory agency approvals to the DDC Project Manager. Changes that require approval by the Landmarks Preservation Commission will be filed by DDC. Changes that require approval by the Public Design Commission will be filed by the Consultant at the direction of the DDC Public Design Commission Liaison.

3. Bid Tabulation Analysis

The Consultant shall attend the Bid Opening and review the Bid Tabulation available at the conclusion of the Bid Opening to assist in discovering any bid anomalies.

C. FURNITURE AND EQUIPMENT

For projects involving furniture and equipment specifically directed in the Task Order or Project Objectives the Consultant is responsible for:

1. Requisition Forms and Purchases Orders

Upon completion of the base building Contract Documents, the Consultant shall meet with the DDC Project manager to receive prototypical requisition forms and purchase orders and to establish a schedule for their completion.

2. Coordination

Upon receipt of the completed forms, the DDC Project Manager shall forward the forms to the Division of Municipal Supplies of DCAS. The Consultant shall coordinate the delivery schedule with the various vendors holding Furniture Requirement Contracts at DCAS.

3. Phasing of Furniture Acquisition

If necessary, the consultant shall prepare separate requisition forms for each floor and construction phase of the project, ensuring that deliveries will be prompt, that the installation will be complete and that furniture storage for future phases will be kept to a minimum.

VII Construction Services

A. BASIC SERVICES DURING CONSTRUCTION

1. Summary of Basic Services

The Consultant shall perform basic services as described under the headings listed below at no additional compensation.

a. Monthly Site Visit
Monthly site visits, field inspections, and reports.

b. Bi-weekly Site Meetings
Job meeting attendance and minutes.

c. Review
Of shop drawings, samples, cuts and mock ups.

d. Estimates
Review and approval of detailed estimates.

e. Subcontractor Qualifications
Review and recommendations

f. Interpretation
Of the contract documents and to provide drawing amplifications of building details when the bid documents are unclear.

g. Responses to RFI's

h. Resolve Design Errors
Provide documents to resolve design errors

i. Coordinate Documents
Review of the Contractors coordination documents and adherence to the construction schedule.

j. Change Orders
Identification, review, and verification of Contractors change orders.

k. Punch List
Participation in the preparation of a punch list.

l. Prepare LEED construction credit submissions, if applicable.

m. Requirements of the Department of Design and Construction
The Consultant shall meet all requirements of DDC with respect to procedure, stamping, and transmittal (see General Conditions). Changes in the shop drawing and material sample approval stamp shall not be made without the written approval of the DDC Resident Engineer.

2. Monthly Site Visit and Field Inspection Reports

The content of the Field Inspection Reports is essential to assuring the quality of the construction work. Detailed observations on current work, field conditions, connections, clearance, and Contractor capability will assist the DDC Resident Engineer in quality control efforts. The Field Inspection Report is the vehicle by which the Consultant is empowered to assure that ongoing construction work is in compliance with the design intent, details and specifications that form the basis of the Contract Documents.

a. Consultant
The Consultant shall visit the site monthly for the purpose of preparing a Field Inspection Report. The Consultant shall report in writing all observations on issues to quality of ongoing inspected work or site conditions. Consultant Field Inspection reports shall be on the approved DDC forms.

b. Sub consultants
The sub-consultants shall visit the site as directed by the Consultant when work affecting their respective area of responsibility is being performed, and shall report in writing on issues or quality of the inspected work or site conditions. Sub-consultant Field Inspection Reports shall be on the approved DDC forms and forwarded to DDC by the Consultant.

c. Content
The content of the Field Inspection Reports is essential to assuring the quality of the construction work being installed. Detailed observations on current work, field conditions, connections, clearances and Contractor capability will assist the DDC Resident Engineer in quality control efforts. The Field Inspection Report is the vehicle by which the Consultant is empowered to assure that ongoing construction work is in compliance with the design intent, details and specifications, which form the basis of the Contract Documents.

d. Experience
The Field Inspection Reports are to be prepared by members of the Consultant team who are thoroughly familiar with the project.

e. Submittals
The Field Inspection Reports are to be submitted in writing to the DDC Resident Engineer within five working days of the site visit. This will enable the DDC Resident Engineer to address the issues identified in the reports at the next project site meeting.

f. Attachments
The Field Inspection Reports are to be attached to the job site meeting minutes and shall be signed and sealed by the appropriate Registered Architect, Professional Engineer or Registered Landscape Architect.

3. Bi-Weekly Job Site Meetings and Minutes

a. Consultant and Sub consultants Meeting Attendance
To facilitate completion of the work according to the standards of quality and the schedule set by the construction documents the Consultant is required to attend all project meetings. Sub consultants, as deemed necessary by the DDC Resident Engineer, are also required to participate in the relevant portions of such meetings. These include the Construction Kick-off (Pre-Construction) meeting, job-site meetings held every two weeks, and all meetings relating to the design.

b. Purpose of the Meetings
At the job meetings the progress of the work is reviewed and the work coordinated between the various Prime Contractors. Attendees identify and confirm the next scheduled activities of work and eliminate, if possible, potential delays due to deliveries, field conditions, staffing or swing space.

c. Shop Drawing Log
An additional agenda item at the project job site meetings is the review of the Shop Drawing Log, taking appropriate action to ensure that submittals deadlines and review turn-around periods are met.

d. Requests for Information
A primary purpose of Consultant participation at the job site meetings is to be able to obtain or respond to any Requests for Information coming from the Prime Contractors.

e. Prepare and Distribute the Meeting Minutes
Unless otherwise directed, the Consultant shall attend all bi-weekly job meetings and prepare and distribute the bi-weekly job meeting minutes within three working days of the meeting. Copies shall be distributed to all meeting attendants and others as identified by the DDC Resident Engineer. The DDC Construction Resident Engineer will prepare the meeting agenda and conduct the job-site meetings.

f. Format of Meeting Minutes
The bi-weekly job site meeting minutes shall be prepared in a format determined by DDC.

4. Review of Shop Drawings, Samples, Cuts and Mock-Ups

The Consultant shall receive shop drawings, samples, cuts, and mock-ups directly from the contractor for review and approval. Consultant and subconsultants shall review, approve, and distruibute submittals per procedures described in the General Conditions.

a. Promptly Check Shop Drawings
The Consultant shall act promptly and systematically to check all shop drawings, materials samples, catalogue cuts and items exhibited in mock-ups.

b. Consultant or Sub consultant
The Consultant or sub-consultants shall determine whether the shop drawings, material samples, products identified in catalogue cuts and items exhibited in mock-ups, are in accordance with the Contract Documents and Specifications.

c. Sheeting, Bracing and Underpinning
In addition to checking shop drawings, samples, catalogue cuts and on-site mock-ups, the Consultant or sub-consultants shall review all necessary documentation for sheeting, bracing and underpinning.

d. Indicate Necessary Changes

i. The Consultant or sub-consultants, if required, shall indicate in writing on all submittals the changes necessary to conform to the Contract Documents and Specifications within ten working days of the submittal. Responses by the Consultant shall be to both the submitter and the DDC Resident Engineer.

ii. The Consultant shall make no changes to the design or changes causing additional cost or project duration without prior written approval from DDC

e. Long Lead Time Items
The Consultant shall present the list of all items that require early procurement to the Contractor. These are long lead time items, which may significantly impact project duration and coordination.. Long lead time items shall also be highlighted on the Shop drawing Log Form.

f. Shop Drawing Log Form
The Shop Drawing Log Form shall be presented to the Contractor at the Construction Kick-off (Pre-Construction) Meeting. Contractors shall be responsible for filling in the item submission dates and the delivery dates for approval by the DDC Resident Engineer.

g. The Consultant shall receive copies of the Contractor prepared approved schedules for the submission of shop drawings, samples and catalogue cuts and shall review these lists every two weeks. The Consultant shall review and direct modifications if required. Updated copies shall be submitted to the DDC Resident Engineer.

h. The Consultant shall ensure that the updated copies of the approved schedules for shop drawings, samples and catalogue cuts shall include all information necessary to indicate progress on processing submitted to the DDC Resident Engineer.

i. Listed information shall include the names of subcontractors, the titles of shop drawings and the due dates in accordance with the approved schedules. These include dates of issue, receipt, checking, return for correction, resubmission and final acceptance, along with other pertinent information.

j. LEED Submittals
The Consultant shall review monthly reports prepared by the contractor(s) to monitor progress towards LEED certification. Monthly progress reports shall cover erosion and sedimentation controls, constructyion waste recycling, indoor air quality during construction, and material tracking for recycled content, rgeional materials, and VOC limits. The Consultant shall review reporting requirements and format with contractors at construction kick-off, and schedule monthly meetings to discuss LEED status with DDC and contractor(s).

k. Commissioning
The Consultant shall coordinate submittal distribution with the commissioning agent and incorporate relevant commissioning comments into their review.

5. Review of Schedules of Items and Costs

The Consultant shall promptly examine, recommend adjustments to, or indicate approval of, the schedules of items and costs submitted by the Contractor. This will allow DDC to establish a reasonable basis for subsequent partial payments to Contractors.

6. Recommendation of Subcontractor Qualifications

The Consultant shall review the credentials of the proposed subcontractors for compliance with the special experience requirements.

7. Interpretation of Contract Documents

a. Clarification
The Consultant shall interpret Contract Documents, provide clarifications, and make recommendations, by drawing and in writing, as required by DDC.

b. Prepare Additional Drawings
The Consultant shall promptly prepare any additional drawings that may be necessary for clarifying the contract documents prepared under the design contract.

c. Submit Supplementary Drawings
The Consultant shall submit such supplementary drawings. They shall be done in accordance with DDC drawing standards.

d. Sealed and Signed
Supplementary drawings are to be sealed and signed by the Consultant or the Sub-consultant as appropriate.

e. Obtain Required Approvals
The Consultant shall obtain any approvals for supplementary drawings as necessary from applicable regulatory agencies and utilities.

8. Review of Contractor Coordination Documents

a. The Consultant and/or sub-consultant, as appropriate, shall review the Contractor's coordination documents and promptly report in writing to the DDC Resident Engineer on issues relating to meeting the project schedule and achieving the quality of work specified in the Contract Documents.

b. The Consultant shall systematically monitor the progress of all construction work scheduled and promptly report to DDC any conditions that may cause delays in the completion of the work.

9. Resolution of Design Errors or Omissions

a. The Consultant, and any Sub consultants as required, shall promptly submit to DDC any necessary correspondence, supplementary or revised drawings, specifications, negotiated cost estimates and any other documentation or coordination material.

b. Upon approval of the required changes in the contract documents by DDC, the Consultant shall promptly provide to the Contractors all the documentation necessary to execute the work as revised.

10. Documentation of Consultant Change Orders

a. Compensation for Consultant Change Orders
Payment shall be made for Consultant Change Orders during the construction period resulting from scope changes, administrative changes and field conditions that could not reasonably have been anticipated prior to the time of bids, and which require design modifications. Compensation shall be in accordance with the "Agreement," with the total amount shown on the staffing chart to constitute the maximum payable for the change order work.

b. Staffing Plan and Cost Proposal
Within fourteen consecutive calendar days of any change order initiation the Consultant shall prepare a detailed staffing plan and cost proposal. The Consultant shall be fully prepared to negotiate the change order within this two week period in accordance with agreement.

c. Staffing Chart
The staffing chart must show number of technical employee work hours and non-supervisory principal work hours that will be required for each change order. The technical employee work hours shall be broken down as to title, expected work hours, and average pay for each title in accordance with the "Agreement".

d. Furnish Further Documentation
Following the change order negotiations, the Consultant shall furnish any and all further documentation requested by the DDC Resident Engineer to complete the Change Order package within seven consecutive calendar days.

11. Assistance with Contractor Change Orders

a. Supplemental Documents
Contractor change Orders may require additional documents from the Consultant. The Consultant and Sub consultant as required shall prepare any necessary supplementary drawings, estimates and specifications to clarify issues relative to any Contractor Change Order that does not require a Consultant Change Order.

b. Change Order Less than $75,000
If the Contactor Change Order is equal to or less than $75,000 based on an initial estimate, the Consultant shall furnish all supplementary drawings, estimates and specifications to DDC within seven consecutive calendar days from the date of request.

c. Change Orders Greater than $75,000
If the Contractor Change Order is greater than $75,000 based on an initial estimate, the Consultant shall furnish all such material within fourteen consecutive calendar days from the request date.

d. Consultant Review and Verification of Contractor Change Orders
The Consultant may be requested by DDC to review the Change Order description and verify that the proposed Contractor Change orders were not part of the original

scope of work of the Contract. When such requests are made, the Consultant shall review and verify the Contractor Change orders within two working days from the date of request.

12. Installation of Furniture and Equipment

a. Site Visit
The Consultant shall conduct a site visit to survey the conditions at the site along the full path of the delivery, two weeks prior to the scheduled delivery. The Consultant shall identify problems such as unfinished ceilings, unpainted walls, and missing electrical work.

b. Efficient Furniture Installation
DDC must be notified immediately by the Consultant if there are any conditions which will prevent efficient furniture installation.

c. Room Furniture Layouts
The Consultant shall provide copies of individual room furniture layouts. These shall be posted, prior to delivery, at each respective room entrance.

d. Location of all Furniture and Equipment
The Consultant shall verify that all furniture and equipment is placed in the correct room and in the proper location as per contract room plans.

13. Construction Punch List

The Consultant shall, at Substantial Completion, participate in the preparation of Construction Punch Lists. The Consultant shall submit a list of items for the Punch List to the DDC Resident Engineer within ten working days of the request of such a list. This list of items shall be based on a final site visit and Field Inspection Report, and on any unresolved problems that have been the subject of earlier reports or job site meetings. The Construction Punch Lists will be compiled at a job site meeting and shall be part of the minutes of that meeting.

14. LEED Certification

The Consultant shall coordinate with contractors and commissioning agent as necessary after construction to finalize documentation of all outstanding LEED credits and shall submit the completed application to USGBC for review. Once USGBC concludes the final application review and certifies the project, the Consultant shall provide DDC and the client agency with copies of the entire application and a summary report on credits earned and metrics associated with each credit, i.e. credit EAc1 achieved 20% energy savings. The Consultant shall also coordinate with the client agency on LEED project registration and certification materials, such as plaques and certificates.

B. ADDITIONAL SERVICES DURING CONSTRUCTION

1. Definition

Additional services consist of any design services and project representation above and beyond the services called for under “Basic construction Related Services”. Additional services during the construction period may be defined in the project Specific Requirements or may be requested by the DDC Resident Engineer to assure the quality of the work being installed and general adherence to the construction schedule.

2. Compensation for Additional Services

Additional services shall be compensated on time card basis. Such services include but are not limited to:

a. Minor Design Changes not related to design error or omission
Including related technical or administrative work.

b. Site Observation
Full-time job site observation.

c. Construction Schedule
Reporting on adherence to construction schedule.

d. Site Visits
Increased job site visits and Field Inspection Reports.

e. Site Meetings
Conducting job site meetings other than the bi-weekly and monthly meetings.

f. Shop Visits
Making shop visits to review fabrication process and materials.

g. Change Orders
Prepare Change Orders on behalf of the Contractors.

h. Monitoring As-Built Drawings
Prepared by the Contractors

i. Substantial Completion Inspection
Conducting Substantial Completion Inspection and reviewing readiness for Beneficial Occupancy.

j. Information to Defend Claims
Preparing information to defend claims arising out of construction work.

3. Special Inspection Services

Special Inspections required by the DOB when performed by the Consultant are additional services:

a. Retaining the Services of a Professional Engineer and a Testing Laboratory to perform all tests and inspections required by regulatory agencies for items needing Special Inspection or certification.

b. Submitting all special inspection reports and certification to regulatory agencies with copies to the DDC project manager.

4. Plant Tagging and Field Services

Plant Tagging by the Consultant is an additional service that includes the following:

a. Tagging of Plant Materials
The Consultant shall engage the services of a licensed Landscape Architect to select, tag with DDC seals, and supervise the planting of all plant materials. All individual plants shall be balled and burlapped or container-grown stock. Representative samples of ground cover grown in flats shall be inspected and tagged at the nursery before such plants are prepared for shipment. All plant materials shall be inspected for signs of invasive pest infestation prior to shipment. Any infestation must be immediately reported to the NYSDAM.

b. Inspections of All Plantings
In addition to supervising the planting operations, the Landscape Architect hired by the Consultant shall inspect the final planting and notify DDC when it is appropriate to accept the planting and initiate the guarantee. Inspections of all plantings shall be made by the Landscape Architect engaged by the Consultant throughout the maintenance and guarantee period, and sufficiently early that replacement plants may be planted in the appropriate planting season. The Landscape Architect is to identify for replacement all plants found to be unhealthy or infested by invasive pests. At the

expiration of the guarantee period the Landscape Architect shall notify DDC as to whether or not the Contractor should be released from further obligation.

c. Preparing a Maintenance Report
The Landscape Architect shall prepare a report for the DDC indicating whether the Contractor is complying with the maintenance portion of the Contract and recommending actions required. Note that the planting acceptance and release are independent from acceptance of the general construction work. The report shall be prepared at a time appropriate to the planting installation, as determined by the DDC Resident Engineer.

d. Preparing a Maintenance Schedule
The Landscape Architect shall prepare a written and graphic maintenance schedule and manual for all final project planting materials. Upon the approval of the manual, the Consultant shall submit the original to the DDC Resident Engineer. For each type of plant, the schedules and manual shall identify the requirements for irrigation, fertilization, pruning weeding, cultivating mulching, lawn care, seasonal plantings, plant replacement, pest control and disease control.

5. Resubmittal of Amended Final Drawings

Additional drawings prepared during the construction period necessitated by changes to the project design resulting from field conditions, scope changes, or other unavoidable situations will be considered as additional services. Any changes to the exterior design of a project under the jurisdiction of the PDC requires the submission of explanatory documents for an amended final approval; thewse should be prepared and amended approval obtained prior to the work being done. The Consultant is required to prepare presentation and contract documents for DDC to file at the LPC. Preparation of the additional drawings necessary for the resubmissions at the PDC or the LPC is an additional service.

C. COMPENSATION

1. Adequate Compensation for Sub consultant Services

The DDC Resident Engineer may request documentation from the Consultant demonstrating that adequate payments have been made to assure performance of required Sub consultant Basic and Additional Services including but not limited to Field Inspection Reports.

2. Reimbursable Services for Extended Construction Period

If the construction period has been extended beyond the duration expected in the Task order or project objectives, additional compensation may be in order. If the extension has occurred through no fault of the Consultant, attending the on-site job meetings, preparing the minutes, and performing any of the other services listed in this section beyond the expected duration constitutes an additional service. Compensation is to be made on an hourly basis.

3. Staffing Plan

The Consultant and Sub consultants, as required, shall prepare a staffing plan and cost schedule in accordance with the Task order or project objectives for DDC approval of any construction related services required by an extension of the duration of construction.

VIII Regulatory Approvals

A. REGULATORY APPROVAL SERVICES

The Consultant is responsible for the following services and activities relating to approvals and project close-out:

1. Initial Application Procedures

The Consultant is responsible for verifying that all initial applications and procedures that may influence the design and schedule of the project have been completed. These may include the Uniform Land Use Review Procedure (ULURP), City Environmental Quality Review (CEQR), and Environmental Impact Statement (EIS).

2. Approvals Report

The Approvals Report shall be scheduled and identified in the project schedule and on the project checklist or Approvals Report and shall be discussed at the Design Kick-off Meeting. In accordance with the services and deliverables of the Schematic Design, Design Development, and Construction Documents phases, and with the requirements of construction scheduling and phasing, the Consultant shall obtain approvals as early as project development allows.

3. Service Requests

The Consultant shall file for utility service requests at the earliest possible time because review periods can be of considerable duration. Cost assumptions at utility service filings are based on budget estimates and may be revised by the Consultant with the concurrence of the DDC Project manager for utility company purposes. Should preliminary cost assumptions be based on estimates, they can be subsequently revised. Where the same utility company provides electric, gas, and or steam service, requests for such services must be made at the same time. The Consultant shall include a plot plan of the proposed building, with the desired points of service entry measured from a fixed surveyed point. The Consultant will submit a copy of accepted service requests to the DDC Resident Engineer.

4. Timely Applications

Immediately upon filing any application, the Consultant shall submit copies to the DDC Resident Engineer. The Consultant is required to file applications as early as possible. The Consultant must follow through to insure rapid handling and examination, so as to minimize time loss. The Consultant must notify the DDC Project Manager if any delays occur. Copies of response from regulatory agencies and utilities must be submitted to the DDC Resident Engineer.

5. Amendments

The Consultant shall arrange to file amendments and receive approvals for the revised work, where approvals have been received and changes are subsequently made which affect the work already covered. The Consultant shall advise the DDC Resident Engineer of any developments in the construction drawings which conflict with submittals under review or submittals previously approved by regulatory agencies.

B. REGULATORY APPROVAL DELIVERABLES

Requirements for deliverables by the Consultant include:

1. Approvals Report

The Consultant must complete the DDC Approvals Report Form PA-1, adding the heading, checking the required items, and added needed regulatory agency approvals. The Consultant shall submit the completed form as a requirement for the initial design fee payment in Schematic design. The Approvals Report form must be revised whenever there is a significant change in the project scope of work, including revisions brought about by design change orders.

2. Record

The Approvals report form must be filled out and maintained as a record, to be reviewed at all progress meetings, as the applications are submitted and approvals obtained. By the 50% submission during Construction Documents, all required applications must have been filed, and, when possible, approvals obtained from the regulatory agencies and utility companies. Copies of these applications and the Approvals report Form will be submitted by the Consultant to the DDC Project Manager. When complete the PA-1 form serves as the final record of all required approvals.

3. Copies

Copies of all regulatory agency approvals of both plans and applications shall be included in the required milestone submissions.

4. B-Scan

The Consultant shall provide copies of approved DOB approved plans and applications to DDC to be held at the project construction site. The documents shall bear original DOB approval stamp.

5. Amendments

The Consultants are required to file amendments for changes implemented during construction that cause the executed work to differ from that for which approvals were originally obtained from the regulatory agencies.

6. Sign-offs and Certificate of Occupancy

Consultant participation may be required during the sign-off and the Certificate of Occupancy process at the DOB.

7. Record Set

The Consultant shall also provide a digital copy of scanned approved plans and applications on a digital storage device for DDC's records.

C. PUBLIC DESIGN COMMISSION

1. Background Information

a. The Public Design Commission (PDC) is the division of the Mayor's Office responsible for the review and approval of works of art, architecture, landscape architecture, urban design, and street furniture on City-owned property. The PDC reviews a wide variety of projects for aesthetic appropriateness. They include construction and restoration of buildings, playgrounds, installation of lighting, distinctive sidewalks, and the design, installation, removal, and conservation of public artwork.

b. The PDC consists of eleven unpaid commissioners and a staff headed by an executive director. According to Chapter 37 of the New York City Charter, the PDC shall include an Architect, a Landscape Architect, a painter, a sculptor, and three lay members nominated by a Fine Arts Federation and appointed by the Mayor. The PDC also includes representatives of the Metropolitan Museum of Art, the Brooklyn Museum, the New York Public Library, and the Mayor.

2. History

The PDC was established as the Art Commission in 1898 with the consolidation of the City of New York in keeping with the spirit of the turn-of-the-century City Beautification Movement. The Commission was included in the City Charter as an objective body that would ensure the best quality of design possible for projects on public property.

3. Meetings

Commissioners convene every three weeks for public hearings, meetings, and occasionally site visits. They review, discuss, and vote on design projects and artwork proposed for City-owned properties, address general policy issues, and establish guidelines for future designs.

4. Landmark Preservation Commission Jurisdiction

In 1995, with the passing of Local Law 77 and revision of the New York City Charter, certain overlapping jurisdiction between the PDC and the LPC was eliminated. If approval of proposed work primarily concerns a landmark site, a landmark interior, an existing building within a scenic landmark, or an action within an historic district, and if a report or determination by LPC is required as a result of Local Law 77, then only the LPC will conduct the review.

5. Public Design Commission Jurisdiction

Public Design Commission review is required in the following instances:

a. Project Types
Review of all architecture, landscape architecture and streetscape projects on City-owned property, except if it is a landmark, a landmark site, a landmark interior, an existing building within a scenic landmark, or an action within an historic district.

Project-types subject to PDC approval include, but are not limited to, new buildings, additions, exterior ramps, window replacements, exterior lighting, street furniture, distinctive pavement, steps and curbing, landscaping, and signage other than regulatory traffic signage. Only routine maintenance work and projects entirely in the interior of a building do not require PDC review and approval. Projects with exterior work that can be considered replacement in kind can apply for a waiver through the DDC PDC Liaison.

b. Scenic Landmarks
All projects within scenic landmarks, except for work on existing buildings.

c. Artwork
Any project involving works of art on or in City-Owned Property, wherever it may be situated and regardless of landmark status, requires PDC approval. The term “work of art” includes but is not limited to, sculpture, paintings, mural decorations, mosaics, stained glass, statues, carvings or casting in high or low relief, inscriptions, monuments, and fountains. The work covered includes new artwork, and the conservation, relocation, and removal of existing artwork.

6. Submission Requirements

Detailed descriptions of the format for submissions to the PDC and a listing of the items that must be included are posted on the Commission’s website http://www.nyc.gov/html/artcom/html/home/home.shtml .

7. Timing of Submissions

Projects are submitted towards the end of Schematic Design for Preliminary review. Projects seeking Final Approval are submitted when the construction documents are 90% complete. As determined by DDC, large or complex projects may also require submission for Conceptual Review at an early stage of design, prior to submission for Preliminary review.

On occasion, there are relatively simple projects that can receive simultaneous Preliminary and Final Review by the PDC. This approach needs to be determined by the DDC PDC Liaison before the end of Schematic Design. For preliminary review, PDC requires that the project be presented to Community Board prior to submission to PDC..

8. Pre-Design Commission DDC Review Meeting

Prior to submission to the PDC, a pre-submission review meeting is held at DDC to both review the design quality of the project and the completeness and conformance to PDC guidelines of the application material. This meeting generally occurs at least a week prior to the planned submission to the PDC.

9. Design Commission Submissions

DDC officially submits to the application and, for preliminary approval, the CB letter. All other submission materials are delivered directly to PDC by the Consultant.

10. Design Commission Presentations

a. On the day of the Public Hearing or Committee Meeting, the Consultant will make a presentation of the project to the Public Design Commissioners. In cases where the project is not fully approved, another submission addressing the Commissioners' concerns is required. The agenda and schedule for the PDC presentation is issued a week prior to the presentation date.

b. Projects that involve Percent for Art require a presentation by the Artist accompanied by the Consultant.

11. Amended Preliminary or Final Approval

Any significant revisions to the approved Preliminary or Final design, following an approval from the PDC, shall be submitted to the Commission for Amended Preliminary or Final Approval. Graphic indication of the changes shall be shown in comparison with the previously approved design. Significant amendments to preliminary approval should be submitted during the Design Development phase. Significant amendments to final approval, particularly those occuring during construction, should be submitted as quickly as possible and before such work is built.

D. LANDMARKS PRESERVATION COMMISSION APPROVAL

1. Background information

a. The Landmarks Preservation Commission (LPC) is responsible for designating and protecting the landmarks of New York City. The Commission was created in 1965 by the Landmarks Law, Section 3020 of the New York City Charter and Chapter 3 of Title 25 of the Administrative Code. The agency consists of eleven commissioners and a staff headed by an executive director.

b. The objective of designating landmark properties is to "safeguard the city's historic, aesthetic, and cultural heritage" and to "foster civic pride in the beauty and accomplishments of the past." Protection of designated properties is achieved through mandatory review and approval of plans for restoration, alteration, addition, reconstruction or other proposed changes.

c. The LPC has jurisdiction over all properties that are either designated or pending designation as NYC landmarks. The four types of landmark designation are individual (exterior), interior, scenic, and historic districts. In addition, projects undergoing City Environmental Quality Review (CEQR) fall under LPC jurisdiction. Properties so reviewed might be designated as landmarks by New York State or on the National Register even if they are not New York City designated landmarks. CEQR review covers historic, aesthetic, cultural, archaeological and architectural resources.

d. Coordination between LPC and the Public Design Commission
Areas of overlapping jurisdiction between the LPC and the PDC have been minimized with the adoption of Local Law 77. Projects with landmark status, as outlined above, will be submitted to the LPC. If the project primarily concerns an individual landmark, or a project within a historic district, the LPC will conduct the only design review, and PDC review will not be required. For these projects LPC review and approval will be binding. However all projects within "Scenic Landmarks", except for work on existing buildings, will continue to require review by the PDC. LPC will also review and will issue an advisory report in accordance with Landmarks Law. Works of art, as defined by the PDC, on any city-owned property will also be reviewed by the PDC regardless of whether the project is otherwise solely under LPC jurisdiction.

2. DDC Historic Preservation Office

The DDC Historic Preservation Office assists and guides the Consultant in the completion of all steps leading to approval of the project by the Landmarks Preservation Commission and by other entities having jurisdiction over historic properties such as the State Historic Preservation Office (SHPO). The DDC Historic Preservation Office should be contacted at the outset of projects potentially within the jurisdiction of the LPC to verify the designation status of the property. Assistance is provided throughout the application and approval process, and HPO may also monitor the job during construction. The schedule of LPC submission deadlines and hearings is available on the LPC website. Please note that "landmark quality" properties also are identified by the DDC Historic Preservation Office. See Historic Preservation Design Criteria in Appendix A-1 of this Guide for details.

3. Procedures

There is only one application to the Landmarks Preservation Commission; however, there are typically two separate submissions. The first is the initial application for the proposed work. This is typically done near the end of the Design Development phase where a clear design direction has been determined. At this point a Landmarks Preservation Commission staff member will be assigned to the project, and the likely level of action, either staff review or public hearing, will be established. The second required submission is for the final approval, issued in the form of a Binding Report. This submission includes final construction documents including specifications. On certain projects it is important to involve the LPC early, such as projects that involve a Pre-Schematic Phase or extensive alterations to a landmark site. For these projects it's useful to have a Pre-Submission meeting with landmarks staff to discuss project scope and possible alternative design strategies. It is also useful to discuss the scope of work and get advice on appropriate presentation materials. Initial contact could be by telephone or by a meeting, depending on the nature of the project.

a. Pre-Submission Meeting with Landmarks
For projects that require a Pre-Submission meeting with Landmarks the consultant shall prepare all information as required to discuss alternate strategies, schematic designs or scopes of work to discuss with the Landmarks staff. DDC officially receives and reviews the Consultant prepared materials prior to the meeting with Landmarks. This meeting includes the client and client agency, the consultant, staff of the DDC Historic Preservation Office, the DDC Project Manager and Team Leader.

b. Mock-Up Requirements
For all rooftop additions and/or mechanical equipment installations the consultant will be required to provide all necessary information for the construction of a wood or light steel frame mock-up matching the overall size and configuration of the proposed addition/equipment. Photographs of the completed mock-up shall be part of the landmark submission package. Costs for the construction of the mock-up shall be identified as a reimbursable expense or part of the construction budget, depending on the direction of the DDC Project Manager.

c. Delivery of Submission
After approval by DDC, the Consultant delivers required submission materials to the LPC.

d. Timeframe for Landmarks Preservation Commission Determination Report
The submission must be deemed complete by the LPC staff that then has up to forty-five working days after submittal to issue a determination report.

4. Submittal Requirements for Initial Application

Please see the LPC website http://NYC.gov/landmarks for the latest submission requirements for window replacements and rooftop additions. All submission materials must be approved by DDC prior to submitting to Landmarks. Two sets are required for the LPC and two sets for DDC.

a. Application Form
The Application Form will be prepared by the HPO staff and signed by the Chief of Historic Preservation as "Person Filing Application," and the Assistant Commissioner of A&E as "Owner." The Consultant shall provide all necessary information for the form including budget, scope of work etc.

b. Landmark Presentation Design Drawings
The landmark presentation design drawings shall be a full and complete set of drawings that clearly and completely describe all of the proposed work that affects the protected features, interior or exterior, of the landmark structure. These typically include all relevant floor plans, building sections, exterior elevations, interior elevations if applicable, and details.

c. Research
Relevant research, test reports and documentation

d. Existing Conditions
Existing condition shall be documented by photographs and drawings. Contextual photographs are required as well. The first set must be original prints.

e. Presentations to the Landmarks Preservation Commission Staff
Accompanied by DDC staff and the Client Agency Representative, the Consultant is required to make presentations to the LPC staff

f. Samples
One set of material and color samples and related product literature and identification specifications are required.

5. Submittal Requirements for a Public Hearing (If required)

a. Landmark Presentation Design Drawings
The Design drawings include but are not limited to: relevant floor plans, building sections, exterior elevations, interior elevations if applicable, and details. The Consultant shall provide 12 copies of half size drawings for the distribution to all of the LPC Commissioners. A power point presentation may substitute for the full size presentation boards.

b. Research
Relevant research, test reports and documentation

c. Existing Conditions
Existing conditions shall be documented by photographs and drawings. Contextual photographs are required as well. The first set must be original prints.

d. Rendering
A rendering and site line drawings or perspectives shall be provided, if applicable.

6. Submittal Requirements for Final Approval

Two sets are required for the LPC and two sets for DDC of:

a. Final Construction Documents shall be signed and sealed, and include specifications.

b. One set of material and color samples as well as related product literature and specifications is required.

7. Notice Of Compliance from LPC

At the end of the construction phase LPC will issue a Notice of Compliance for all projects under their purview. This is a requirement by the Department of Buildings before their final sign off. The Consultant shall submit to DDC final photographs of all work that affected any of the protected features of the landmark structure or site. DDC will forward these photographs to LPC with a request for issuance of a Notice of Compliance. The Consultant shall also submit to DDC and LPC as-built drawings for any portions of the work that deviate from the LPC approved drawings. After determining that all of the work was completed in accordance with the approved plans and specifications as well as any amendments to the approval, LPC will issue the Notice of Compliance.

E. VALUE ENGINEERING APPROVAL

The Task order or project objectives will specify if Value Engineering studies or workshops will be conducted for a particular project and, if so, how many and at what phases. Typically the Office of Management and Budget (OMB) designates complex projects with an estimated construction value in excess of thirty million dollars for such analysis.

1. Participation

The Consultant shall participate in a maximum of three Value Engineering studies to be performed by a Value Engineering Consultant team engaged by the City under separate contract through OMB.

a. Phases
The Consultant shall fully cooperate with the Value Engineering Consultant and shall supply all requested data during each of these studies. Value Engineering Studies may be conducted at the conclusion of Pre-Preliminary Design, Schematic Design, or Design Development.

b. Workshop Data
As part of each study, the Value Engineering Consultant will conduct a workshop lasting a maximum of five consecutive days. Prior to each study, background data will be needed. The Consultant shall make every effort to comply with requests for data and supply necessary materials in a timely manner.

c. Orientation Meeting
The Consultant's technical personnel will meet with the Value Engineering Consultant, OMB, and DDC so as to allow the Value Engineering Consultant to explain the study process. In addition, the Value Engineering Consultant will review the role, activities and responsibilities of the Consultant and the City in relation to the study process.

d. Data at Outset
The initial meeting will also allow for consideration of project constraints and for the updating of information submitted by the Consultant to the Value Engineering Team on any aspect of the design concept. In addition there may be need to further identify project constraints, provide additional documents or other information, as needed, which the Value Engineering Consultant may request in order to proceed with the study.

2. Schedule

a. First Day
At the beginning of the first day of each study workshop, the Consultant shall make available appropriate design team personnel from the Consultant's office and those of relevant Sub consultants in order to make a design presentation and to respond to questions.

b. Duration
For the remainder of the Value Engineering study, the Consultant shall make the design team available to answer questions in person, by electronic mail, or by telephone. In addition, the Consultant will be requested to attend a brief mid-workshop meeting with the Value Engineering Consultant, to identify and discuss alternatives.

c. Last Day
On the last day of the workshop, the Consultant shall attend a meeting at which the Value Engineering Consultant will present various proposed alternatives and recommendations.

3. Recommendations

The recommendations resulting from the Value Engineering studies shall be submitted to the City in the form of a Draft report within five working days after the last day of the review session. The Consultant shall prepare a written response to each Value Engineering recommendation received. The response shall be submitted to the DDC Project Manager.

4. Modifications

Modifications to the Consultant's documents resulting from the recommendations by the Value Engineering Consultant shall be performed by the Consultant when directed in writing by DDC after consultation with OMB and the Client Agency.

5. Compensation

In accordance with contract provision for extra work, the Consultant shall be compensated for any re-design necessitated by scope change, for orientation and attendance at Value Engineering meetings, study workshops and the presentation of study results by the Value Engineering Consultant.

6. Reimbursement

Reimbursement will not be made for any additional work that is normally part of the project responsibilities of the Consultant. These may include:

a. Extra work resulting from or necessitated by error, omission or oversight on the part of the Consultant, as determined by DDC, will not be reimbursable charges.

b. Work resulting from design changes that are needed to meet scope requirements more effectively, as determined by DDC, will not be reimbursable charges.

c. Attendance at meetings with representatives of agencies, whose approval is normally required